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A Law Enforcement Center for Beaufort County, S.C.

Zachary Zapack
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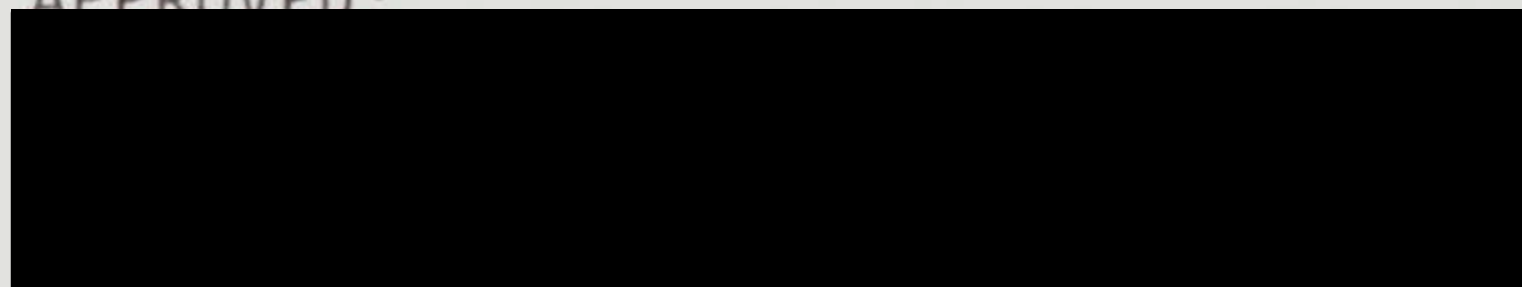
A LAW ENFORCEMENT CENTER FOR BEAUFORT COUNTY, S.C.

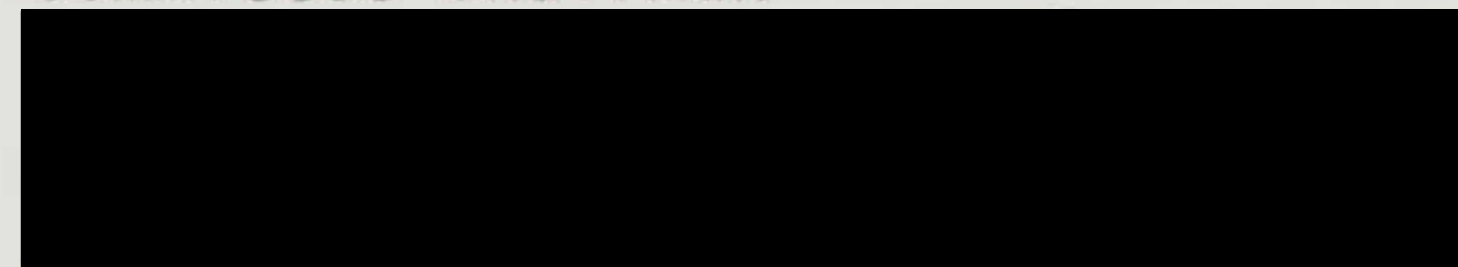
Zachary Zapack
December 1977

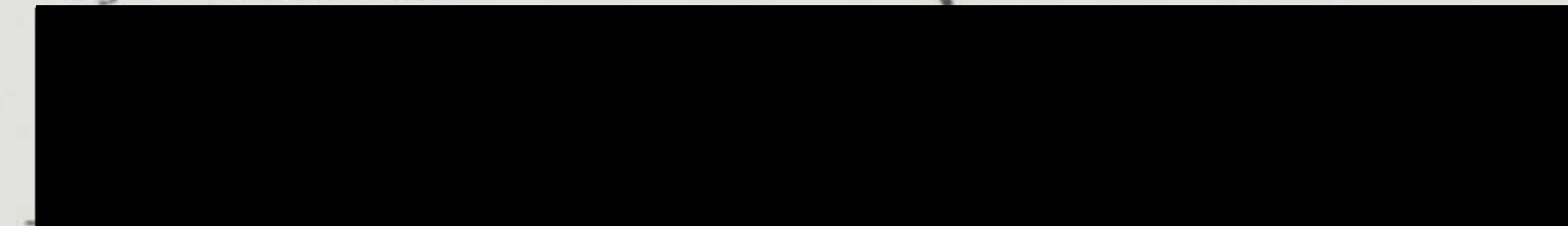
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FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF


MASTER OF ARCHITECTURE

APPROVED:


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A COLLEGE OF ARCHITECTURE, UNIVERSITY OF SOUTHERN CALIFORNIA

THESIS
SUBMITTED TO THE FACULTY OF THE

COLLEGE OF ARCHITECTURE, UNIVERSITY OF SOUTHERN CALIFORNIA
IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARCHITECTURE

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To my Family

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CREDITS

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It is only within the last ten years that national attention has been focused on the problem of criminal justice. A prime example of this new awareness was the increase in federal corrections spending. The figure jumped from \$2 million in 1969 to \$250 million in 1972, a brief period of three years.¹ While this is a significant achievement in the field, it is hardly a panacea. This trend must continue by way of issue identification and the subsequent involvement by our entire society.

There are three major trends which become evident when studying the impact of crime. The first is that corrections alone cannot solve our crime problem.² As a direct result of this realization, efforts are being made to organize and unite those agencies affiliated with any aspect of the criminal justice system. Consolidation is one of the main devices to combat inefficiency on the state and local level.³

The second trend is the realization that the problem of crime is not uniquely the responsibility

of the criminal justice process.⁴ All the new construction and refurbishing of facilities will do little to solve the problem without the rectification of many grave social ills.⁵

The third major development is the predisposition toward community-based corrections.⁶ The lack of development at social interaction is one of the main causes of criminal behavior.⁷ The location of correctional facilities within the community fabric helps alleviate or at least minimizes the distinction between the institution and the community.⁸ This provides for a greater opportunity for success during transition periods.

This comprehensive project attempts to be cognizant of these current trends in developing a solution to a City-County Law Enforcement Center for Beaufort County, South Carolina.

EXISTING FACILITIES

EXISTING FACILITIES

The law enforcement facilities housing the various agencies in Beaufort County were not designed for the task that they are presently performing. Complicating the issue is the fact that these facilities are very overcrowded and have been evaluated as functionally inadequate.

The original county jail is over forty years old. An enlargement of the facility in 1962 is also beginning to show signs of age. In view of recent developments in the field of corrections, it is doubtful that the existing facility will be able to fulfill those requirements without extensive renovations.

The Courthouse, another aging member of the Beaufort legal community, is also in need of assistance. A recent feasibility study advocated the investigation of a new courthouse.

In this section of the report, each of the major facilities related to law enforcement in Beaufort County is evaluated.



Figure 1. Location Map

LAW ENFORCEMENT

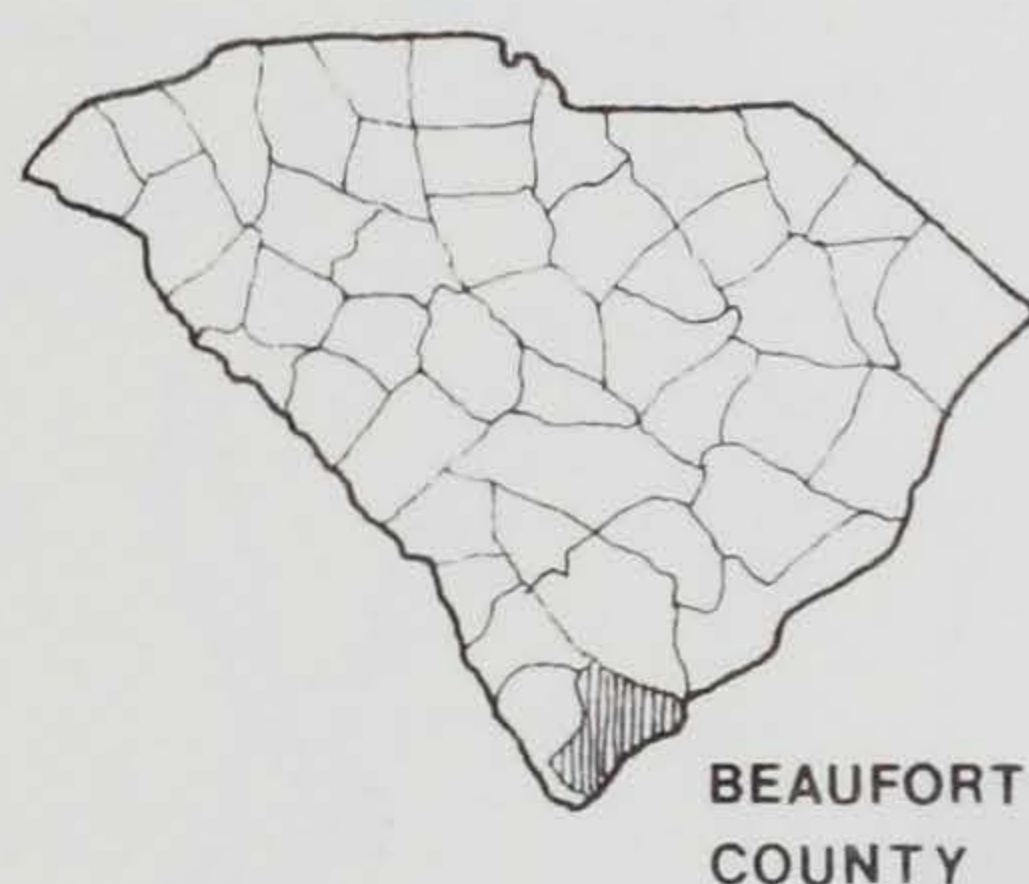


Figure 1. Locator Map

Sheriff's Department. The Sheriff's Department and the county correctional facilities are located in a two-block complex of county office buildings in downtown Beaufort. The entire Sheriff's Department is located in six offices that have been converted from their original use as jail cells. The area of these offices is only 1,360 square feet, which is woefully inadequate.⁹

The Sheriff's office is adequate in size; however, it is performing a dual role in that it serves as a conference and storage area, therefore making it inadequate. The laboratory and the Jailer's office are acceptable, however there is no room for future expansion. There are eight detectives working out of an area approximately two hundred square feet. This same room is also used for interrogation, interviews and counseling. This is hardly conducive to the proper performance of law enforcement. The administration area is overcrowded.



Figure 2. Juris-
dictions

■ BEAUFORT CNTY.
SHERIFF'S DEPT.

□ BEAUFORT CITY
POLICE DEPT.

□ PT. ROYAL
POLICE DEPT.

JURISDICTIONS



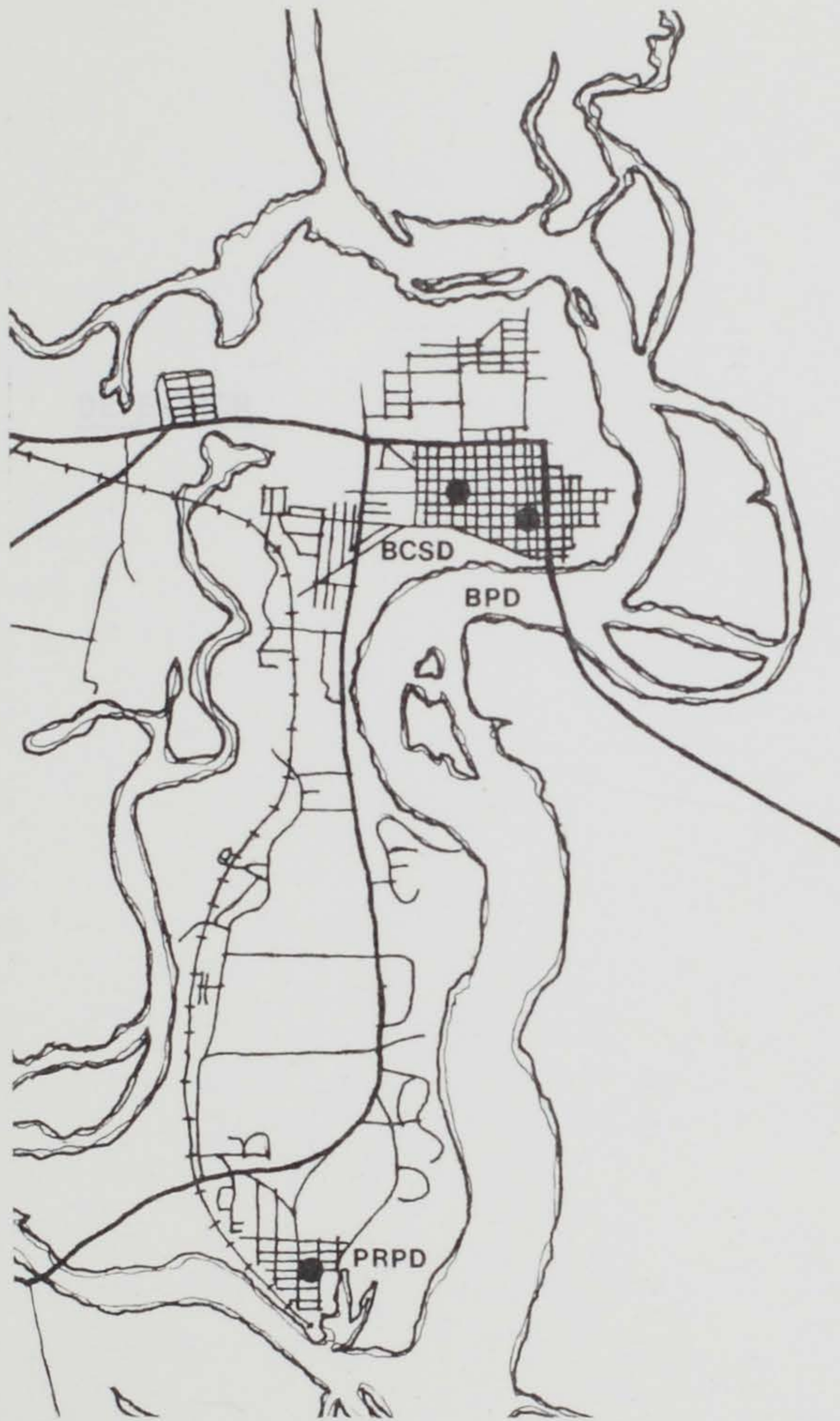


Figure 3. Existing Facilities Locations

Beaufort Police Department. The Beaufort Police Department is more crowded than the Sheriff's Department, even though their facilities are considerably newer. Beaufort has twenty-four sworn officers and fourteen additional personnel at this time. There is a small lobby with a receptionist-dispatcher.

In the 1970-71 Comprehensive Law Enforcement Plans by the Lowcountry Regional Planning Council, the Beaufort Police Department was classified as crowded and functionally inadequate.¹⁰

Port Royal Police Department. Port Royal's Police Department is presently located at the Municipal Government Complex for that city. This is a new complex and their facilities are adequate at the present time. Their facilities, however, are not very elaborate with respect to specialization for law enforcement. While their police force may not need a great deal of space for expansion in the

near future, the administrative functions of the city may be in a position to utilize the additional space, if the police department were to move into a consolidated law enforcement center.

DETENTION

The Beaufort County Jail, the major detention facility of the county was constructed in 1935 and enlarged in 1962.¹¹ The only other facility in the county for housing arrested people is a small overnight lockup jail in Bluffton.¹² The county jail has a capacity of seventy-two people, however this is without regard to regulations stipulating that alleged offenders be segregated according to sex, age, offense, and prior record.¹³

The jail consists of twenty cells, only two of which are single cells. The remaining eighteen cells are four-man cells that are arranged in various configurations. Six of these four-man cells allow for the separation of inmates. The last twelve cells are

divided into four groups and they each have a common day room.

The Beaufort County Jail was last inspected in February, 1972, and was found to be inadequate, at that time, for deficiencies in nine areas. Those areas are:

1. Separation of Inmates. Facilities for segregating inmates, particularly juveniles from adults, are inadequate.
2. Inmate Handling. The design of the jail is not suited for easy handling of inmates.
3. Intracommunications. Communications between the inmates' living quarters and the front office are inadequate. In fact, there is no intracommunication system.
4. Isolation. Facilities to isolate and control problem prisoners are inadequate.
5. Special Consultation Rooms. The jail is without space or facilities for questioning or counseling inmates.
6. Drunk Tank. There is no special cell for isolating or handling drunks.
7. Visiting Rooms. There are no visiting rooms in the jail.

8. Chapel Space. Facilities are not available for use as a chapel.
9. Storage Space. Because of the shortages of storage space, cells are used for storage.¹⁴

COURTROOMS

The Beaufort County Court House was constructed in 1883 and has not been renovated since 1936.¹⁵ A second renovation is a possibility, as is the construction of a new court house. It is, by present standards, outdated and inadequate.¹⁶

Of the seven courts meeting in the Beaufort area, four of them do not meet in the courthouse.¹⁷ These four are: the Beaufort Family Court, the Beaufort City Records' Court, the Port Royal Records' Court, and the full-time Magistrates' Court. The three remaining are: the Fourteenth Circuit Court, the Civil and Criminal Court of Beaufort County, and the Probate Court.

All of the courts that meet outside the courthouse, with the exception of the Port Royal Records'

Court which meets in their city council chambers, are utilizing facilities not designed for the judicial process, and are therefore inadequate. The existing court facilities are also inadequate due to the poor acoustics, ventilation, and overall design of the structure.¹⁸

The Family Court does not require the regular use of a courtroom. Due to the nature of the juvenile and family hearings, more suitable accommodations such as conference rooms are desirable. Provisions for personal counselings are also necessary.¹⁹

The lack of consolidation with respect to centralized records for the county law enforcement and legal agencies is also a problem that needs to be resolved. The feasibility study for a new joint city-county law enforcement facility conducted by Vismor, McGill, and Bell, Inc., and Geiger, McElveen and Kennedy advocates the investigation of a new courthouse for Beaufort County.

DEMOGRAPHIC DATA

POPULATION

Beaufort County has undergone a substantial increase in population between 1940 and 1970. With a hundred thirty-two percent increase, which equaled over 29,000 people during that period, the city has undergone some significant changes.²⁰

The existence of the military in Beaufort County has long been an influential determinant of the county's population, in fact, a substantial portion of the recent increases have been due to the transfer of military personnel into the Beaufort area. In all probability, the population with respect to the military establishments has been stabilized.

The emergence of the Hilton Head resort area has already had some influence on the county's population and is projected to be the fastest growing county census division during the next fifteen years. However, over seventy percent of the population will remain in the Beaufort-Port Royal area for the projection date of 1990.²¹

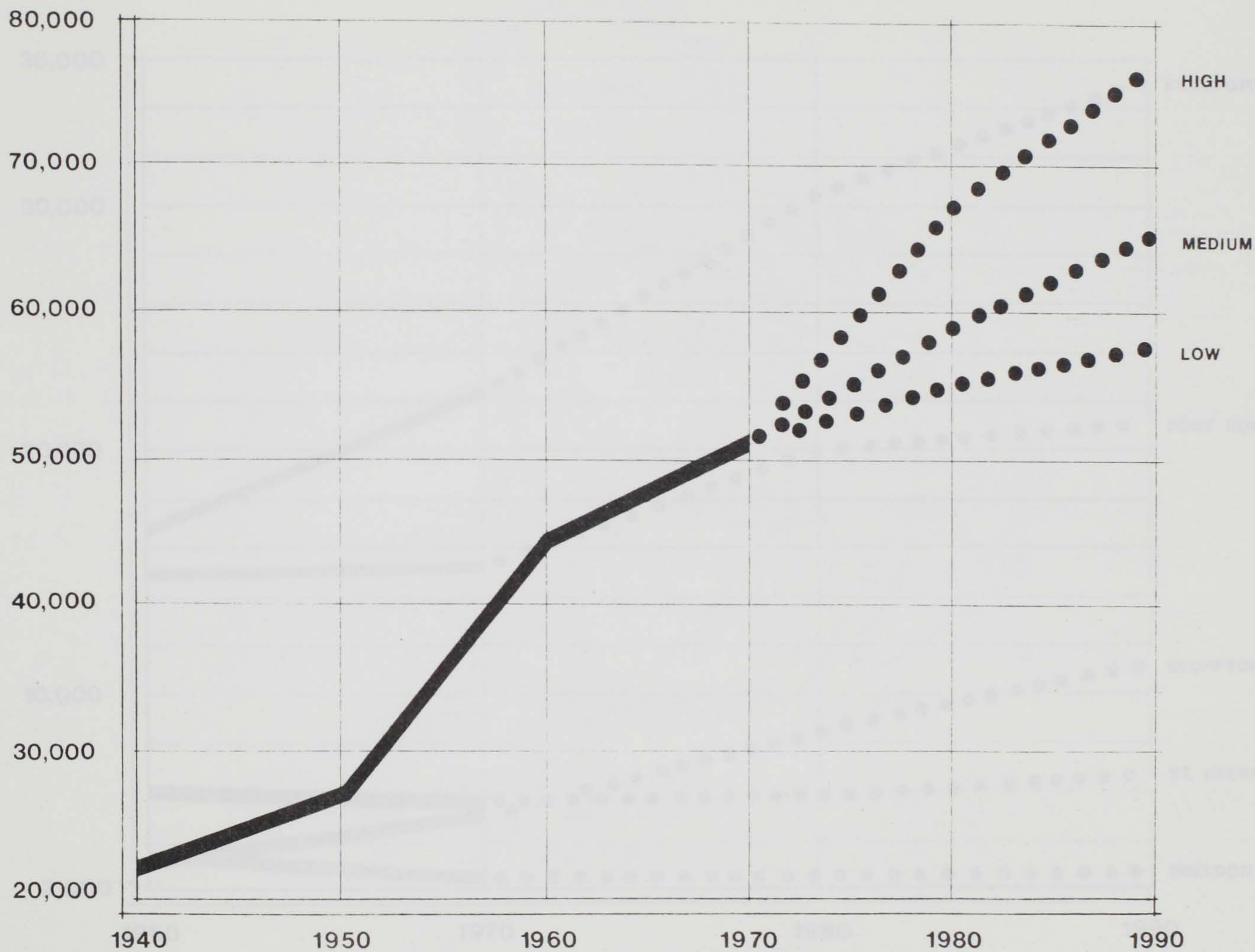


Figure 4.

BEAUFORT COUNTY POPULATION

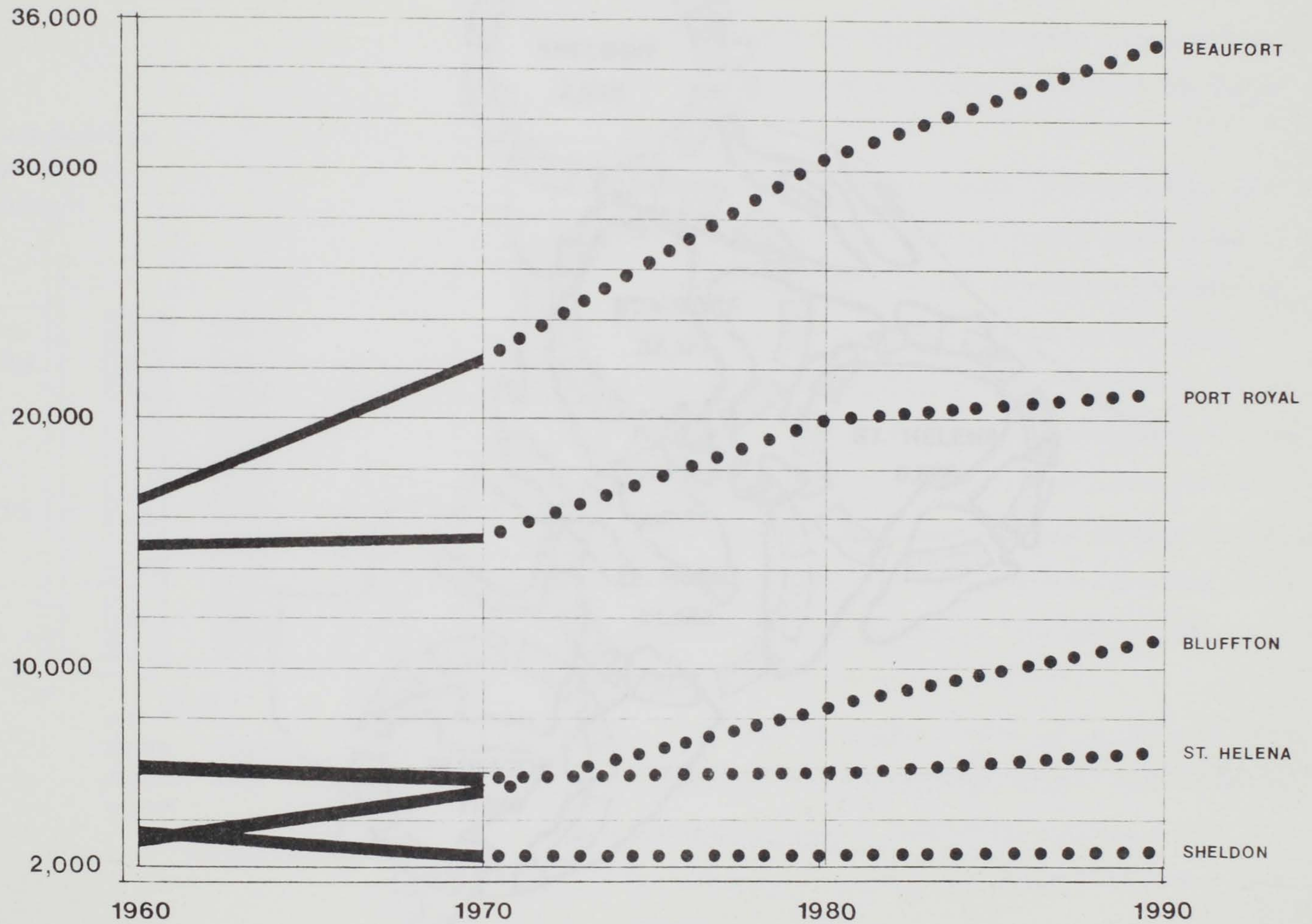


Figure 5.

POPULATION BY CENSUS DIVISION

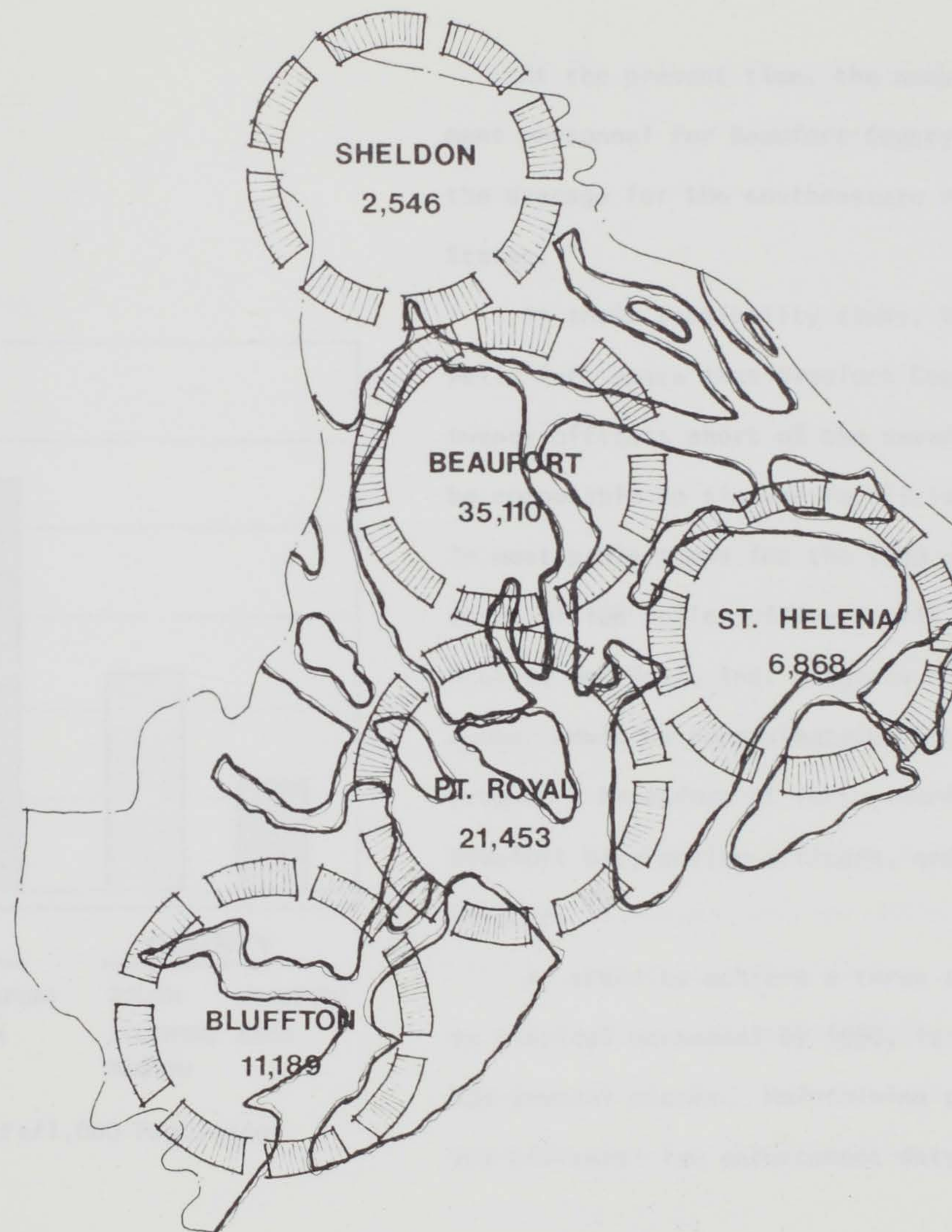


Figure 6.

1990 CENSUS DIVISIONS



LAW ENFORCEMENT

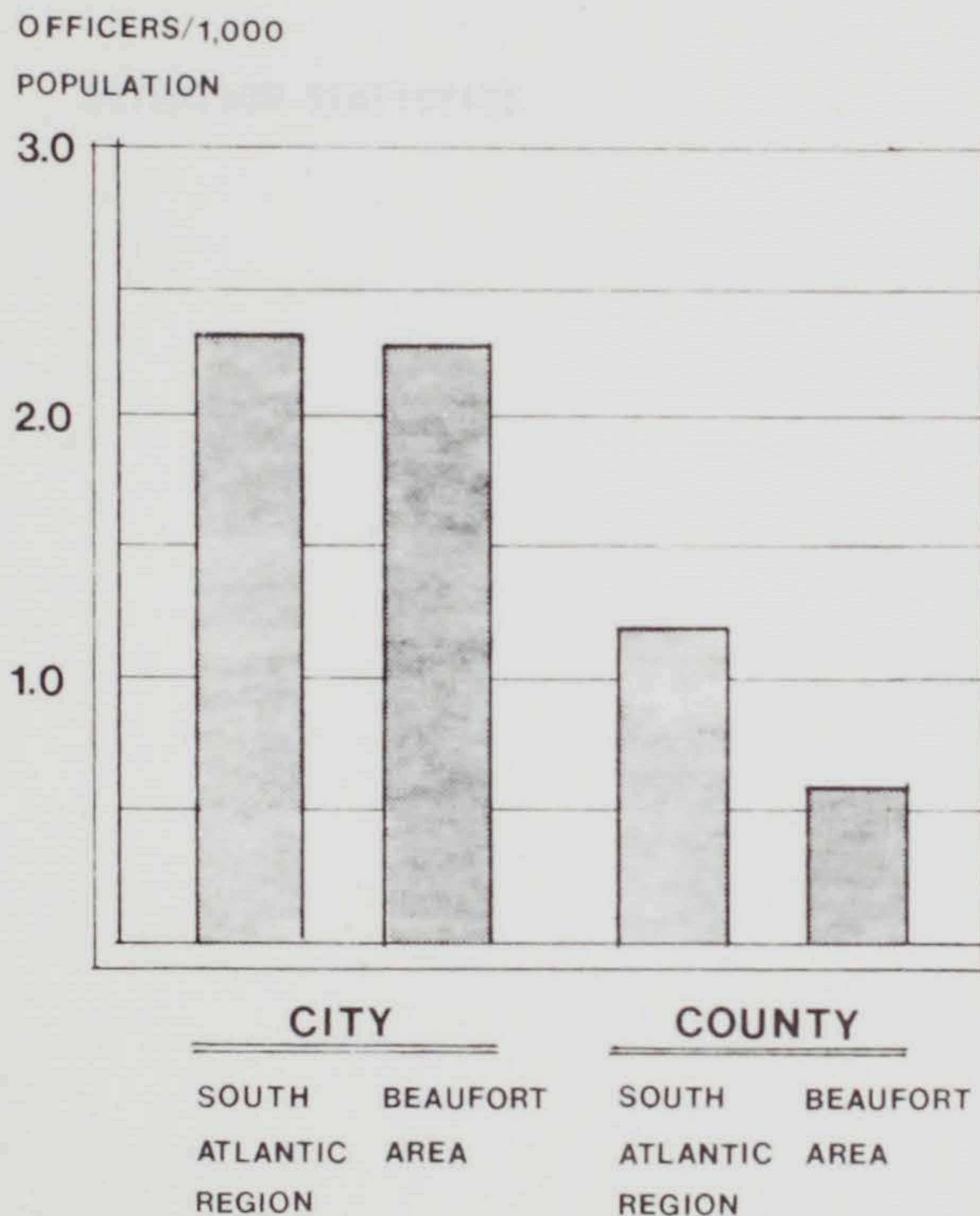


Figure 7. Officers/1,000 Population

At the present time, the number of law enforcement personnel for Beaufort County is slightly below the average for the southeastern region of the United States.²²

In their feasibility study, Vismor, McGill, and Bell, Inc. state that Beaufort County is currently twenty officers short of the seventy-six they need to be comparable to similar localities in the region. To meet projections for the 1990 planning date, a total of 108 police officers will be necessary. Vismor, McGill, and Bell, Inc. suggests that a more realistic number would be approximately eighty officers. They propose a breakdown of forty sheriff's deputies, thirty Beaufort city police officers, and ten Port Royal police officers.²³

In order to achieve a three to one ratio of officers to clerical personnel by 1990, it will be necessary to add several clerks. Maintaining this ratio will increase the officers' law enforcement duty time by twenty-five

percent.²⁴ This will result in approximately twenty-seven clerical and administrative aides for all three departments by 1990.

DETENTION STATISTICS

The State of South Carolina is presently developing and implementing a regionalized corrections program.²⁵ Under this program, the local governing agency would be responsible for a Local Holding Center and a Local Correctional Center. The State would be responsible for an Intake Service Center, a Regional Correctional Center, a Partial Release Center, and a High Security Center.²⁶ Each of these facilities is described as follows:

The Local Holding Center is the first contact of an arrested person with the correctional system. He will be assessed at this point to determine if he will be placed in non-correctional programs or if he will be sent to the Local Correctional Center. The four interrelated activities required for a Local Holding Center are as follows:

Intake. In the Local Holding Center, space shall be provided for preliminary identification of the alleged offender, medical inspection, and whatever booking procedures may be required.

Residence. In the Local Holding Center, residence spaces consist of individual cells or rooms. These should be complete with personal hygienic facilities but may share shower facilities. Visual access to the outside and a residential environment is desirable.

Administration. One or two offices should be provided for a staff work area, and for a communications link with state correctional and law enforcement information systems. In addition, there should be a public entrance and a small reception-waiting area. There should be one room for every ten or fifteen residents for hearings with law enforcement officials, lawyers, family members, and representatives of community agencies.

Activity Support. The necessary climate control and facility maintenance space should be provided. Restrooms should be accessible from staff and public spaces. Food service for the clients may be contracted out.

The Local Correctional Center supports Local Pre-trial Detention and persons serving less than thirty days. It has a varied program and should support no more than 200 residents.

The Intake Service Center conducts the assessment and offender transactions for the State System. It is the central component of the Adult Correctional System.

The Regional Correctional Center supports residential programs exceeding thirty days with the exception of partial release and high security programs. The maximum capacity for this facility should be 200 people.

The Partial Release Center administers partial release programs for people serving more than thirty days. Capacity is approximately 30 people.

The High Security Center supports programs for dangerous individuals serving more than 30 days.

Under this plan, Beaufort County would be responsible for a Local Holding Center and a Local Correctional Center. Due to the fact that the Police and Sheriff's Departments will be housed at the new Law Enforcement Center, it would seem appropriate to locate the Local Holding Center at that location. The existing County



Figure 3

JAIL POPULATION BY SENTENCE, 1972

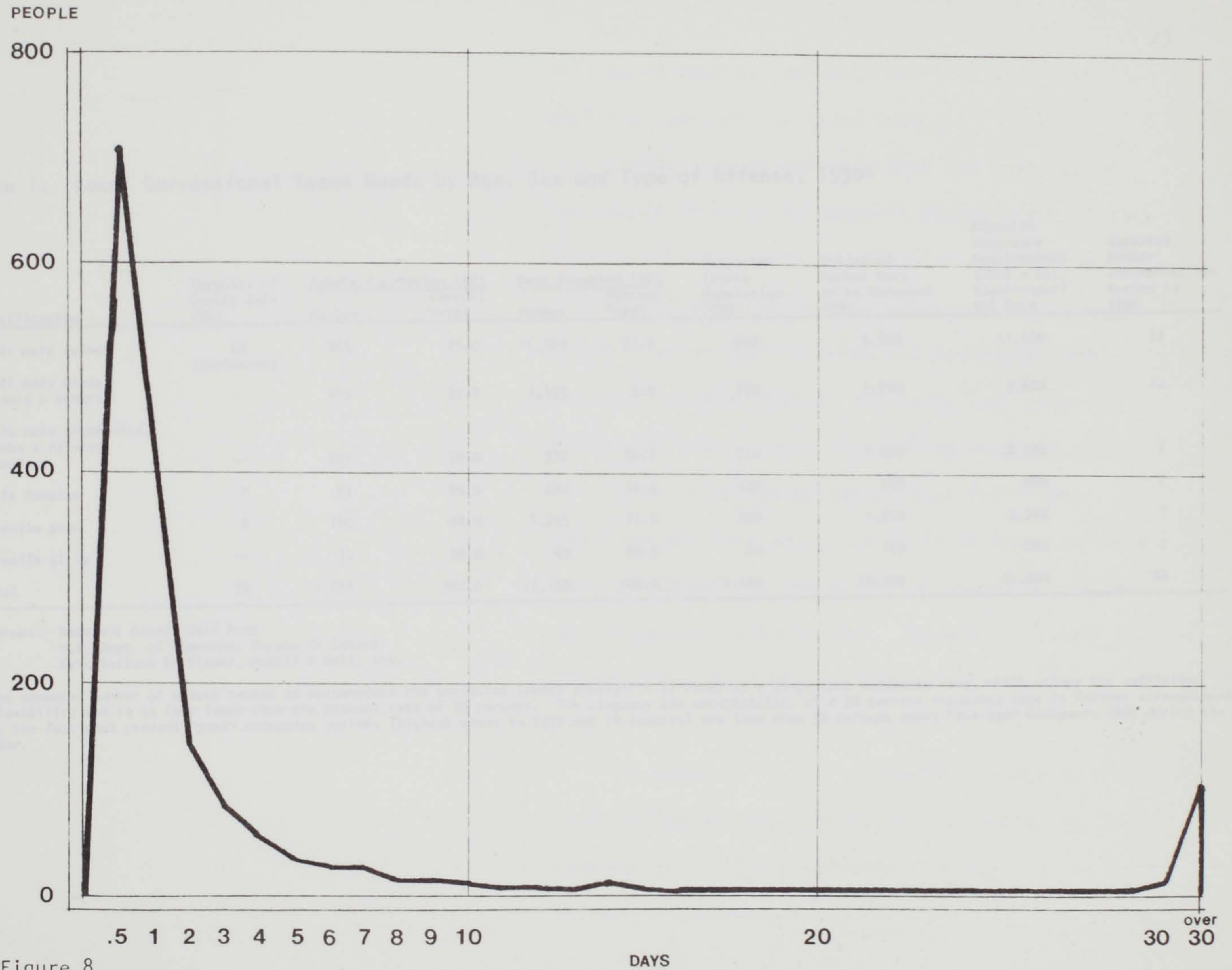


Figure 8

JAIL POPULATION BY SENTENCE, 1972

Table I. Local Correctional Space Needs by Age, Sex and Type of Offense, 1990*

Use Justification	Capacity of County Jail 1972	Inmate Population 1972		Days Occupied 1972		Projected Inmate Population 1990	Estimated Number Days to be Occupied 1990	Adjusted Occupancy Requirements (200% x Est. Requirement) 50% Rate	Computed Number Accommodations Needed by 1990
		Number	Percent Total	Number	Percent Total				
Adult male felons	66 (inclusive)	442	25.0	10,749	71.0	600	5,800	11,600	32
Adult male misdemeanors & others	--	540	30.0	1,495	9.9	730	1,800	3,600	10
Adult male alcoholics, drunks & related offenders	--	527	30.0	932	06.1	730	1,250	2,500	7
Adult females	4	83	05.0	202	01.3	120	300	600	2
Juvenile boys	4	140	08.0	1,703	11.2	200	1,250	2,500	7
Juvenile girls	--	30	02.0	69	00.5	60	100	200	2
Total	74	1,762	100.0	15,150	100.0	2,440	10,500	21,000	60

Sources: Beaufort County Jail Book
 U.S. Dept. of Commerce, Bureau of Census
 Calculations by Vismor, McGill & Bell, Inc.

*The computed number of spaces needed to accommodate the projected inmate population is based on a 50 percent occupancy rate, which allows for sufficient flexibility and is in fact lower than the present rate of 56 percent. The adequacy and acceptability of a 50 percent occupancy rate is further strengthened by the fact that present "peak" occupancy periods (highest count in 1972 was 74 inmates) are less than 35 percent above "average" occupancy (48) during the year.

Jail could then be renovated and fill some other capacity as part of the State Plan.

Recent records indicate that the majority of the people detained by Beaufort County are held less than seventy-two hours as indicated by Figure 9.²⁸ Only a very small number are held over thirty days. Based on county jail records and population predictions, Vismor, McGill, and Bell, Inc. suggests a total of sixty spaces for housing detained people.

Based on an assumption of four full-time positions and four positions of forty hours per week, the total staff for the Detention Center should be approximately twenty people. The use of trained police officers for the purpose is not advisable.²⁹

COURT

The judicial system in Beaufort County is not experiencing any major deficiencies beyond the inadequate facilities previously discussed in the second section of this report.

Last year the Beaufort County Public Defender's Office counseled 666 clients and handled a total of twenty-five jury trials.³⁰

A feasibility study for a juvenile group home in Beaufort County was conducted in April, 1975, for the American Corrections Association. The study confirmed the need for such a facility, which, when completed will substantially reduce the juvenile population at the county detention center.³¹

CASE STUDIES

CASE STUDIES

The combined city-county law enforcement complex is a relatively new building type. There are very few of these joint facilities in existence. One of the first consolidated facilities in this country was constructed in Spokane, Washington, in 1970.

Due to the brief existence of this particular building type, it is very difficult to find and evaluate centers that are similar to what is being proposed. After the major concepts of consolidation are established, it becomes possible to evaluate all types of related facilities and determine the issues for each one. The appropriate list of issues may then be compiled and applied toward formulating a concept.

Each of the selected case studies has specific issues of concern rather than complete application toward this project.

GREENVILLE



Figure 5. Greenville Law Enforcement Complex Schematic

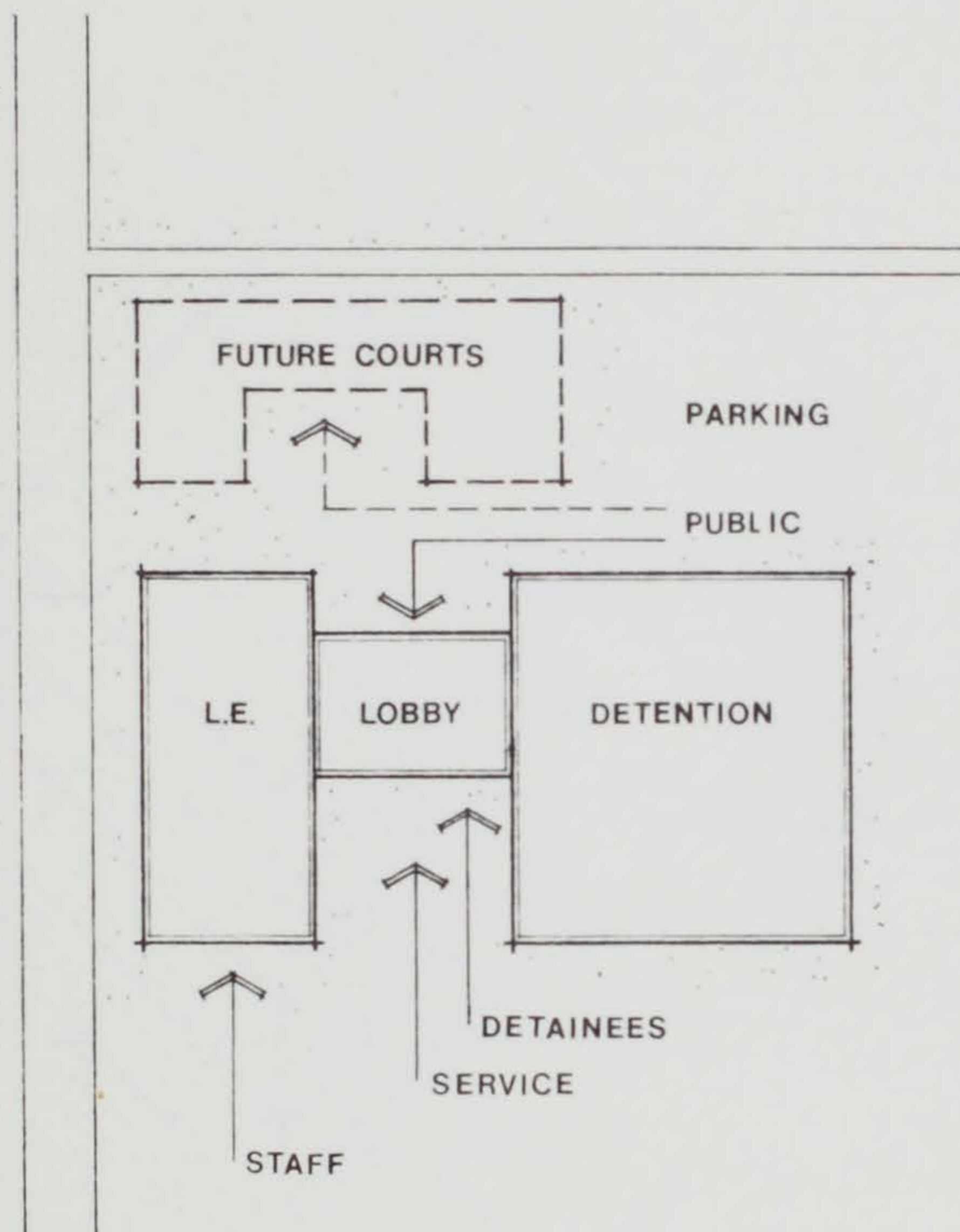
GREENVILLE

Figure 9. Greenville Law Enforcement Schematic

The Greenville County Law Enforcement Center is a joint facility between the County Sheriff's Department and the Greenville Police Department. Also included in the center is the county detention facility. The future phasing calls for the inclusion of a courts complex to complete the center.³²

One of the major design criterion for this complex was consolidation of common functions. Increased interagency communication was also a desired goal. The phasing was incorporated as both a budget and a flexibility consideration.

The entry sequence for the complex is well organized. Once inside the center, public information, as well as circulation is well defined and controlled. Inmate circulation from arrival to housing is relatively efficient also. The sally port occurs in a well protected court at the rear of the buildings, well away from the general public entrance. The control desk for the detention area is well located and has

excellent visual contact with many areas vital to the safe operation of the center.

A horizontal solution for the detention area is generally preferred since it requires fewer personnel to operate it. This was a consideration for Greenville since their future plans call for expansion of this area.



Figure 10. Spokane Law Enforcement Scheme

The agencies included in this facility are: the Sheriff's Department, the Police Department, the Justice and Municipal Courts, the City Traffic Bureau, and the Prosecuting Attorney's Department. The facility has a

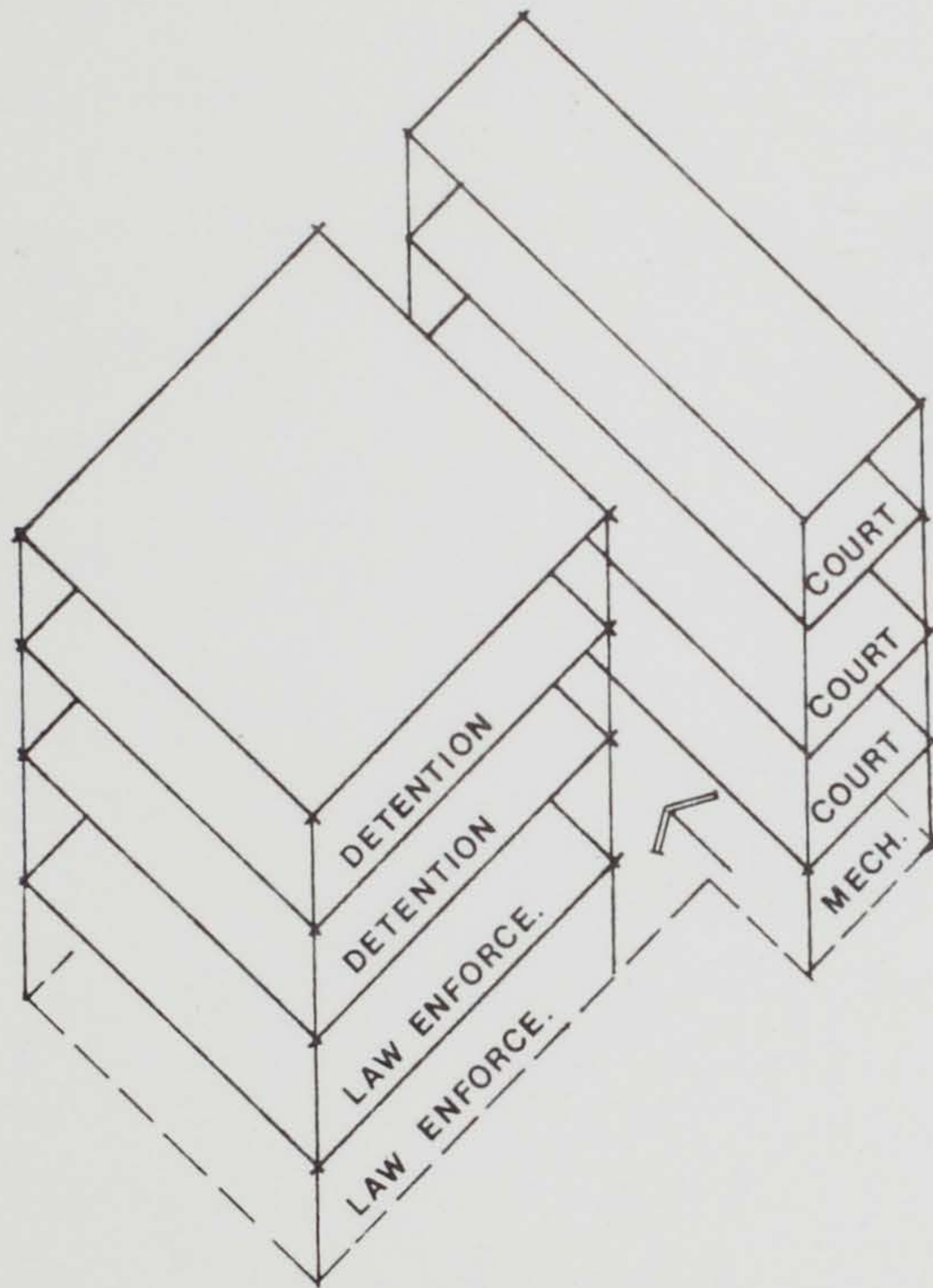
SPOKANE

Figure 10. Spokane Law Enforcement Schematic

The Spokane County-City Public Safety Building is a relatively large metropolitan center. It is primarily based on the premise of consolidation of similar functions, with an important emphasis on the relationship with an existing courts complex.³³ New courts are also located in the joint facility.

The surrounding area is urban in scale. The site is only three and a half acres which is relatively tight for a complex of this size, however the surrounding property is owned by the county and will be used for parking. This will help alleviate part of the constraints for a small site. The facility will be located immediately adjacent to the existing courthouse, and will have a bridge to transport those people awaiting trial.

The agencies included in this facility are: the Sheriff's Department, the Police Department, the Justice and Municipal Courts, the City Traffic Bureau, and the Prosecuting Attorney's Department. The facility has a

built expansion capacity for twenty years. The detention facilities were designed to be adequate until the year 2000.

The major problems that dictated the need to develop this type of facility were: inadequate correctional facilities, under-manned law enforcement agencies, and the difficulty and inefficiencies of transporting prisoners to and from the courts. Consolidation of certain functions would aid in the solution to the above problems, and therefore become one of the prime design criterion.

Since this facility is located in a county complex of buildings, the identification of the public entry is a problem. The lobby of the facility is not very clearly defined for the uninformed visitor and could cause some confusion.

While consolidation of common functions was an issue in the design of the law enforcement sections of this facility, the same logic was not carried

through to the other areas. The administrative sections, as well as the investigative and juvenile areas for each of the departments, are widely separated.

The design of this facility also dictates that the prisoner intake occur below grade and the booking area be located on the second floor, requiring the use of an elevator. This obviously prevents the control room from observing the sally port and the arrival procedure without the use of closed circuit television. The control room also does not supervise the public area or the visiting, which is usually not the accepted practice when staff shortages are a problem. The link with the courts area is excellent.



Figure 11. Richard Rogers

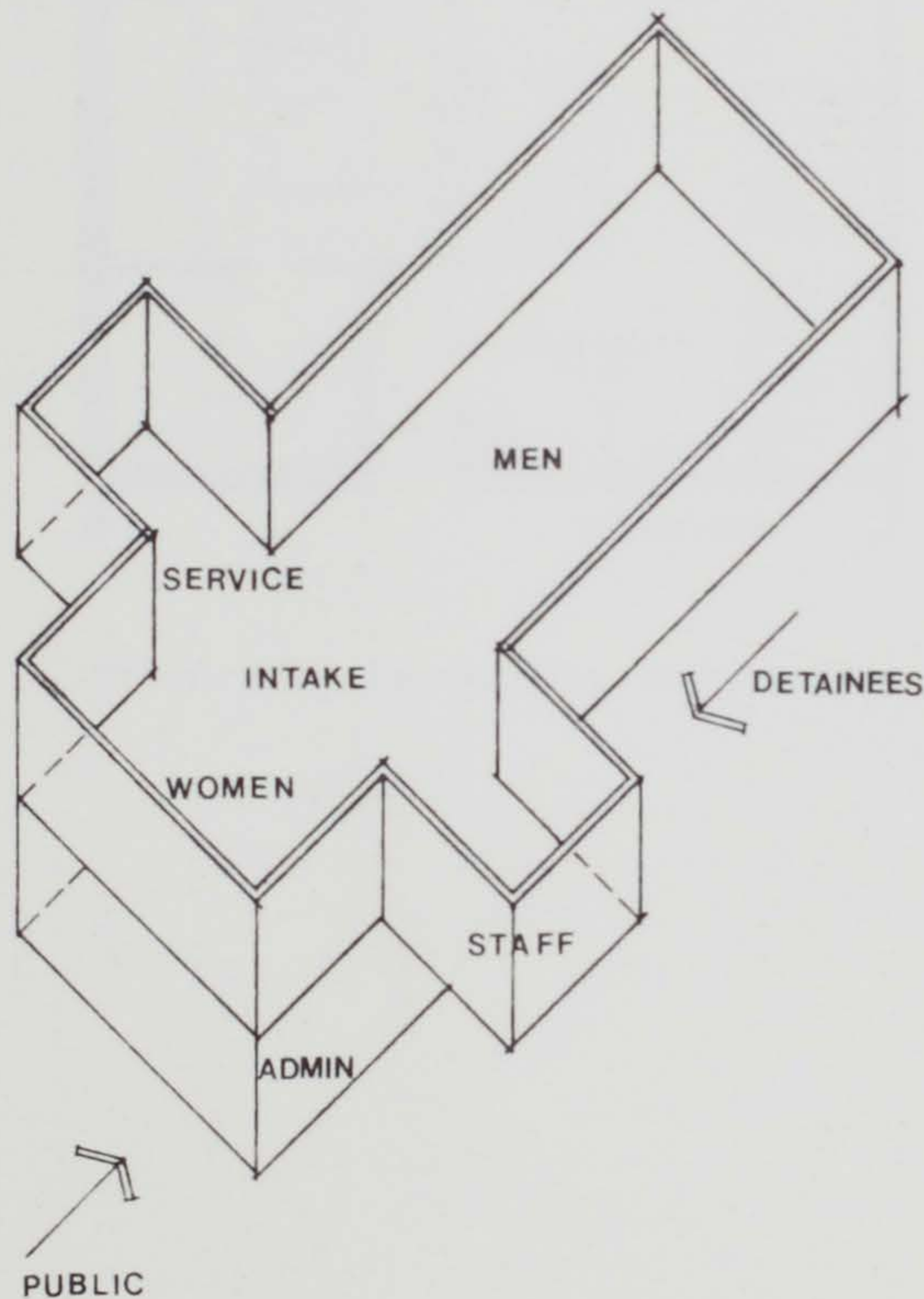
PICKENS

Figure 11. Pickens Concept

The new Pickens County Law Enforcement facility is not a joint complex. It houses only the Sheriff's Department and the Detention Center for the county. The scale of this project gives it merit for consideration and evaluation.

The capacity to expand was planned for in the design of this facility.³⁴ They have the option of expanding by adding to their bay system or by adding a section perpendicular to the existing housing area.

Inmate circulation is well designed. They have accomplished segregation by sex, however, due to the completely isolated position of the women's area combined with the fact that the men's detention is one large area, they may experience some difficulty if the number of women to be detained exceeds the design quota.

The prime reason for the construction of this facility was the totally inadequate existing Detention Center for Pickens County.

KANSAS CITY

Kansas City, Missouri, has recently re-evaluated their police service programs. They have elected to construct a series of community police stations to improve their service. While these are not consolidated law enforcement centers, they each have merit in their determination of the issues for the design of a relatively small police facility. The fact that there is a central service office with a series of local stations does not appreciably alter the determination of the issues. The stations involved in this study are the North Station, South Station, and the South Central Station.

The primary goal in the design of these stations was "to develop a building which reinforced the delivery of community based police services."³⁶ The sites were selected due to their visibility and access. Adequate and well designed sites were also important considerations.

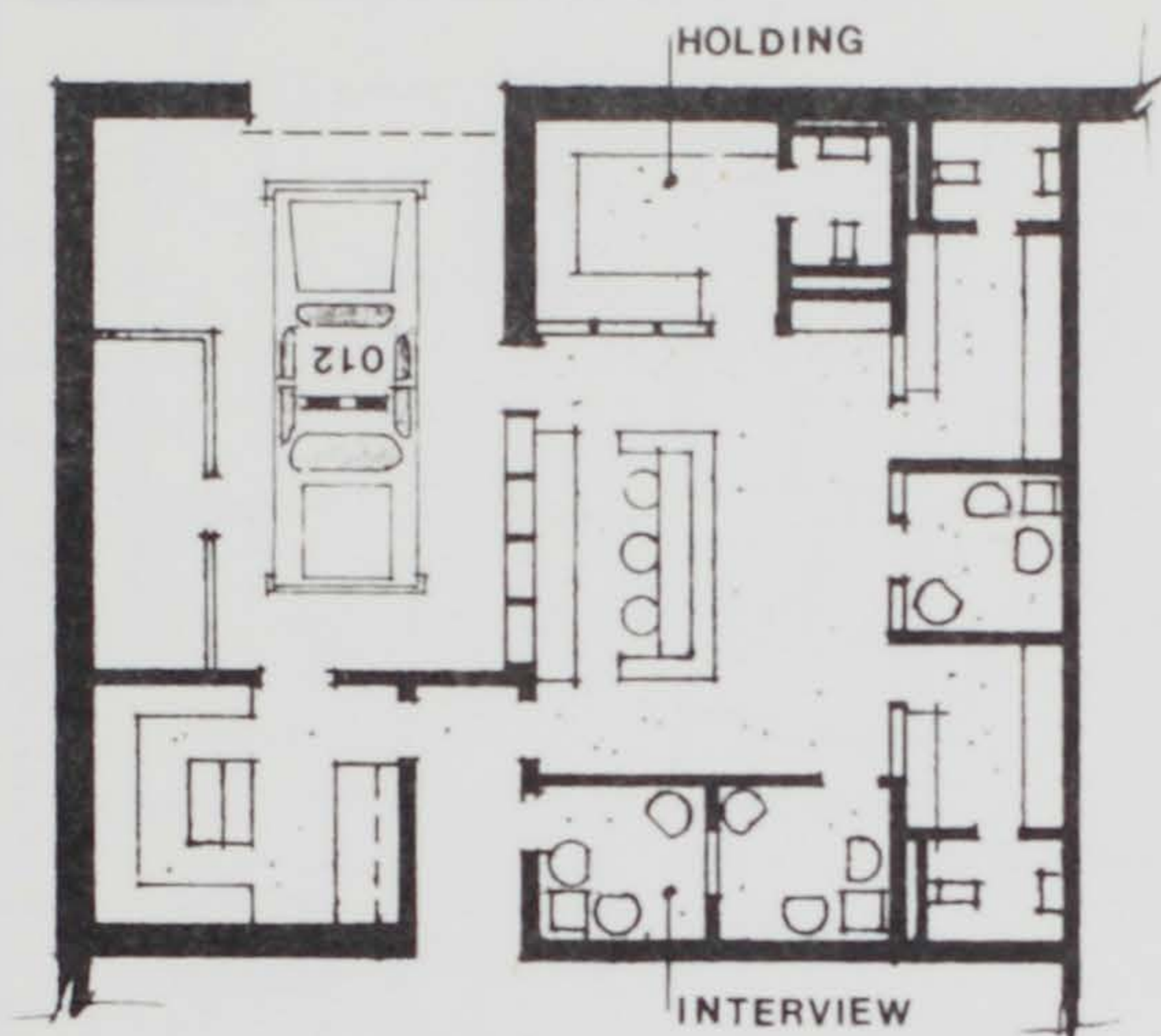


Figure 12. Kansas City Booking Area

Progressive techniques for holding people were also employed in these stations. New construction technology such as the use of laminated windows also enabled the designers greater flexibility in recognizing and dealing with the needs of the detained. "The goal was to preserve the arrestees' dignity and, within the limits set by security and staff safety considerations, to provide a humane, reassuring physical setting."

Flexibility was also another major consideration in the design of these facilities. Extensive space for expansion was provided in all three of the new stations.

APPLETON

Figure 13. Appleton Police Station

This facility is strictly a local police station, and it does not include any other functions such as courts or detention housing. The primary goal for this facility was a high degree of internal flexibility.³⁷ Improving police community relations was also another important goal, which could be aided by the proper design of the new facility.

In designing the new station, the degree of security that each area required, as well as the number of public contacts that could be expected, was compiled. This information was then used to determine the location of each area within the station itself. The need to change these allotments was also recognized early and planned for. Actual building expansion was also a major goal in the building program. Certain areas such as evidence storage, intake and temporary holding areas, special interview rooms required permanent construction and therefore were clustered together, in a central core. A secondary

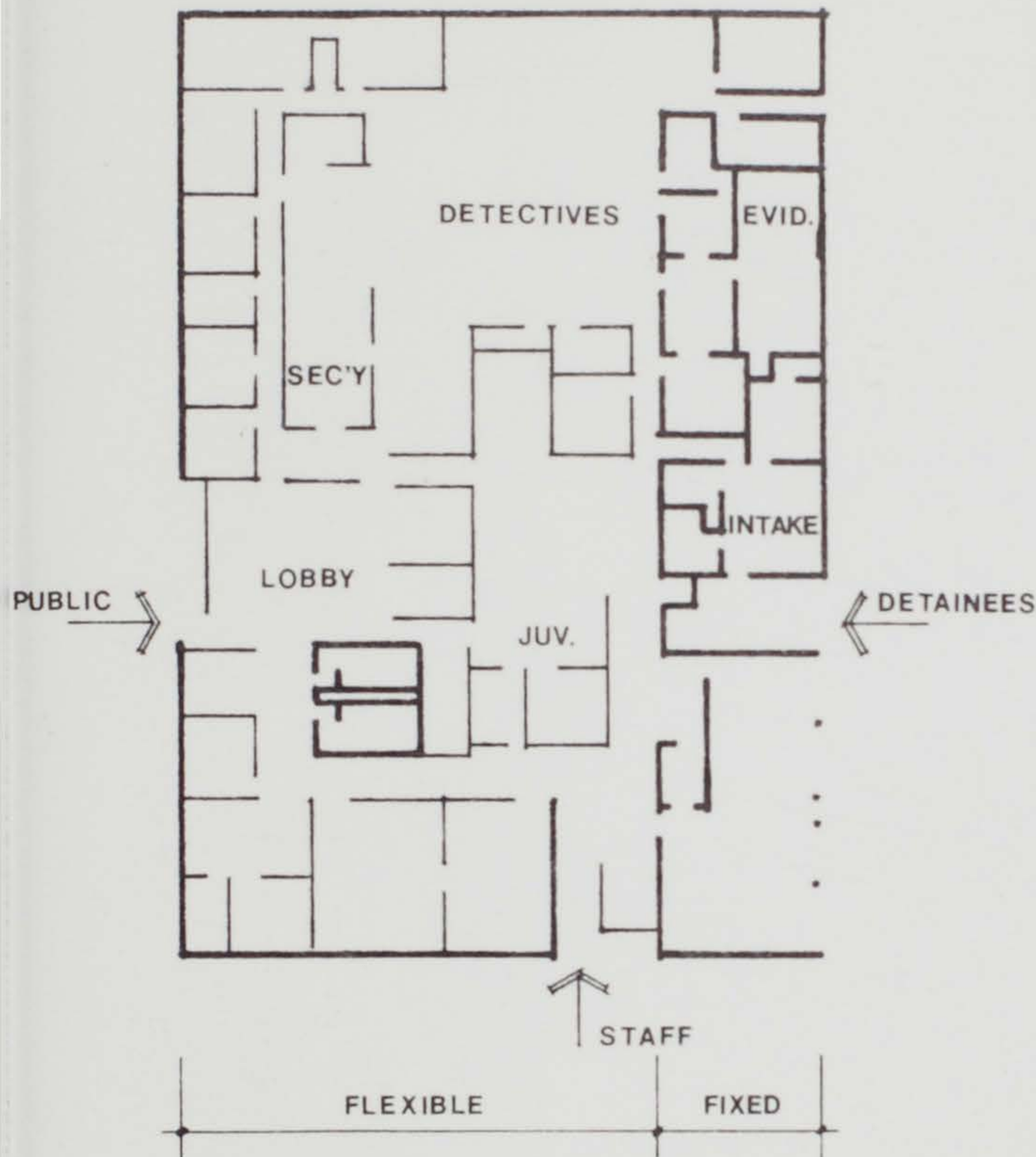


Figure 13. Appleton Floor Plan

level of separation was also desired. Full height wall partitions were used for this purpose. These areas included: the chief's office, conference areas, traffic, the library, the squad room, the juvenile area, and supply rooms. The detectives and clerical areas were further sub-divided by the use of open plan furnishings. The power and phone outlets are in the acoustical tile ceiling and are easily adapted to changes in the office layouts.

This plan does not sacrifice privacy where it is needed. It also makes the necessary separation between the public and private functions without interfering with the proper image that is to be conveyed. There is also a careful separation between the juvenile and adult areas of the facility.

The image of the facility, both for the public and the staff utilizing it daily, was important in the design. Carpeting, vivid colors, and attractive furnishings, as well as extensive use of tinted glass,

were all intended to provide a pleasant working environment.

Another inclusion in this facility is its capacity to act as an Emergency Operating Center for disasters. It was designed to operate in any type of disaster. The center is normally available for police use.

SITE

SITE

SITE SELECTION

There are many factors that influence the determination of a site for a law enforcement complex. The major considerations are as follows: accessibility, cost, proximity to the courts, downtown location, expansion capacity, local land use plan, movement on the site, parking, proximity to legal, medical, social, and cultural facilities, public utilities, and recreational space for correctional facilities.³⁸

All of these factors have various degrees of importance, however, the most crucial factors for this project are accessibility, cost, and the size of the site.³⁹

As a result of a feasibility study conducted by Vismor, McGill, and Bell, Inc. with Geiger, McElveen and Kennedy in 1974 for the Beaufort County Council, four sites were selected for consideration as potential locations for the law enforcement complex. An additional site has subsequently been acquired and will be considered as a fifth potential location.⁴⁰

Accessibility. Accessibility is one of the most important site determination factors for a law enforcement facility. The rapid dispersal of police vehicles as well as a close proximity for the public is very important.⁴¹ Due to the fact that this will be a joint law enforcement center, it will be necessary for the location to be acceptable to all the participating agencies.

Cost. Property already owned by the county is generally preferred over unacquired sites. If a site is composed of several smaller parcels, acquisition may be difficult. The condition of the site with respect to grading and soil condition is also a consideration.

Proximity to the Courts. While the majority of related judicial facilities are scheduled to be located on the same site, not all of the county legal functions will be carried out here.⁴² Therefore, it will be necessary for this relationship to be considered.

Downtown Location. A downtown location is central when only one area is being served, however, for this facility, it will be difficult to have a downtown location and still serve several jurisdictions equitably. The high crime area for the county is in downtown Beaufort and therefore should be considered.⁴³ A downtown location generally has maximum public exposure.

Expansion Capacity. The maximum practical planning period for this type of a facility is approximately fifteen years.⁴⁴ Suitable site selection will permit expansion of the existing facilities at such time as they are deemed inadequate. Planning for expansion will effectively increase the life expectancy of this type of facility.

Local Land Use Plan. If at all practical, the local land use plan should be adhered to. Since the local plan calls for a governmental complex, there is only one site that would be acceptable under this criteria.⁴⁵

Movement on the Site. Unencumbered movement will be necessary to insure the safe access of public, service and law enforcement vehicles with a minimum of confusion.

Parking. One space per hundred square feet of gross building area, including spaces for the handicapped, will be required.⁴⁶

Proximity to Legal, Medical, Social, and Cultural Facilities. The current trend in corrections is directed away from the isolationist attitudes of the past. With the emphasis on adjusting social behavior, as well as seeking more normative environments, a more centralized location is desirable.⁴⁷

Public Utilities. The availability of public water and sewer are vital in the site selection process. Sites with existing utilities are strongly preferred.⁴⁸

Recreational Space for Corrections. Since inmate boredom is one of the greatest problems with corrections, every effort should be made to alleviate this problem. Adequate space for physical exercise is very important in planning a detention facility.⁴⁹

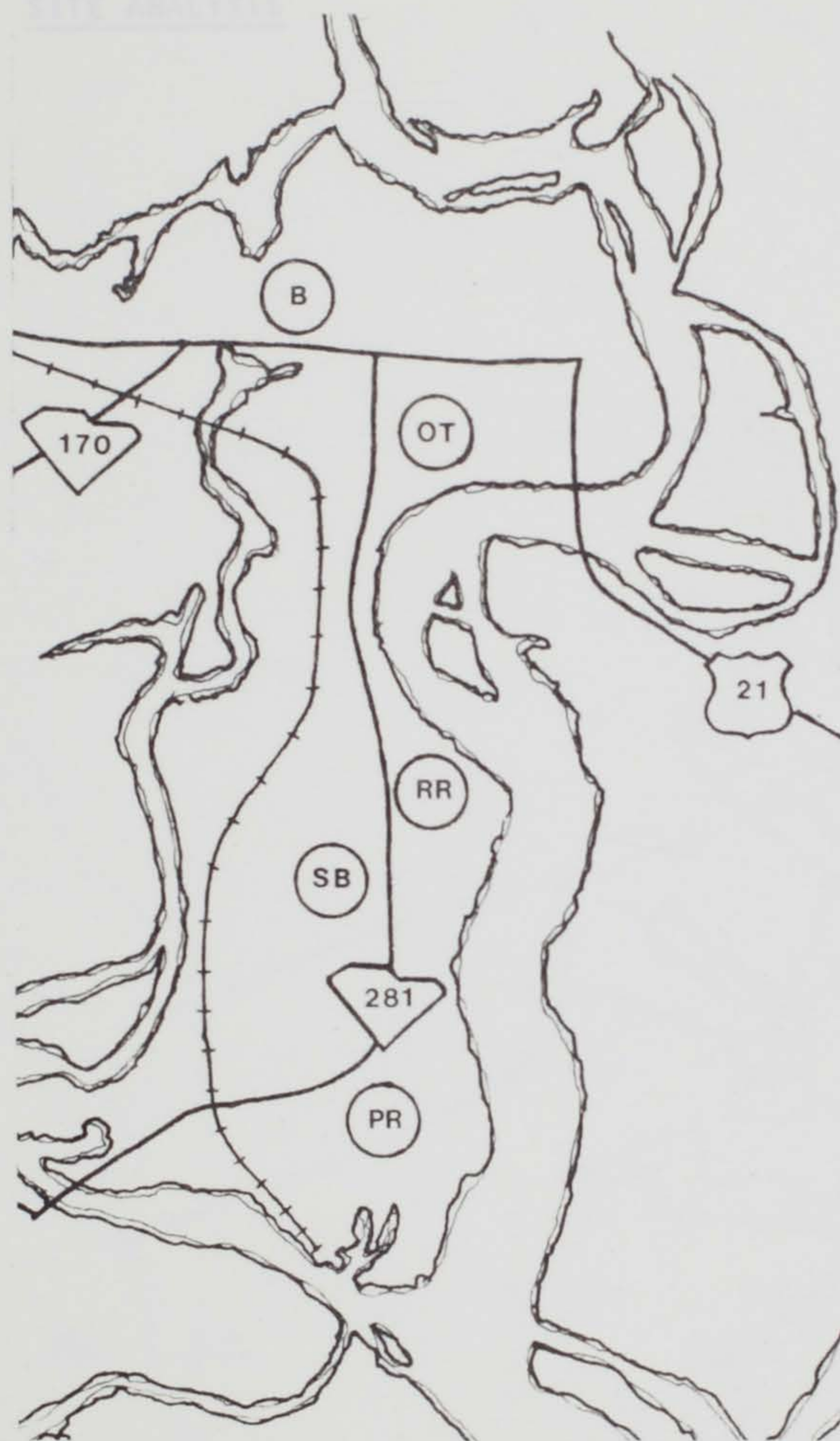


Figure 14. Potential Site Locations

Site	Burton	Old Town	Ribaut Road	Southside Blvd.	Port Royal
Accessibility	●	○	●	●	○
Cost	○	●	○	●	●
Prox. to Courts	○	●	●	○	○
Downtown	○	●	○	○	○
Expansion	●	○	○	●	●
Land Use	○	●	○	○	○
Movement	●	○	●	●	●
Parking	●	○	●	●	●
Legal, Medical	○	●	●	●	○
Utilities	●	●	●	●	●
Good					
Fair					
Poor					

SITE ANALYSIS

According to the site selection criteria, the site located on Southside Boulevard is the optimal location of the available sites for a law enforcement facility. The qualification of this site is further strengthened by the fact that it will be adjacent to the proposed loop road, scheduled for completion in 1990, around the Beaufort urban area, thereby improving the accessibility of the center.⁵⁰

The location of the site on the loop will help improve the accessibility to the site as well as provide public exposure to the facility. Access to the highway will be by the intersections at Battery Creek Road or Ribaut Road.⁵¹ In the event the proposed highway is delayed or not constructed, this site will still be viable.

This site is located across the street from a small, middle class residential area. Also in this same neighborhood is an elementary school, with a high school nearby. These facilities could be assets in that they could be utilized for police programs

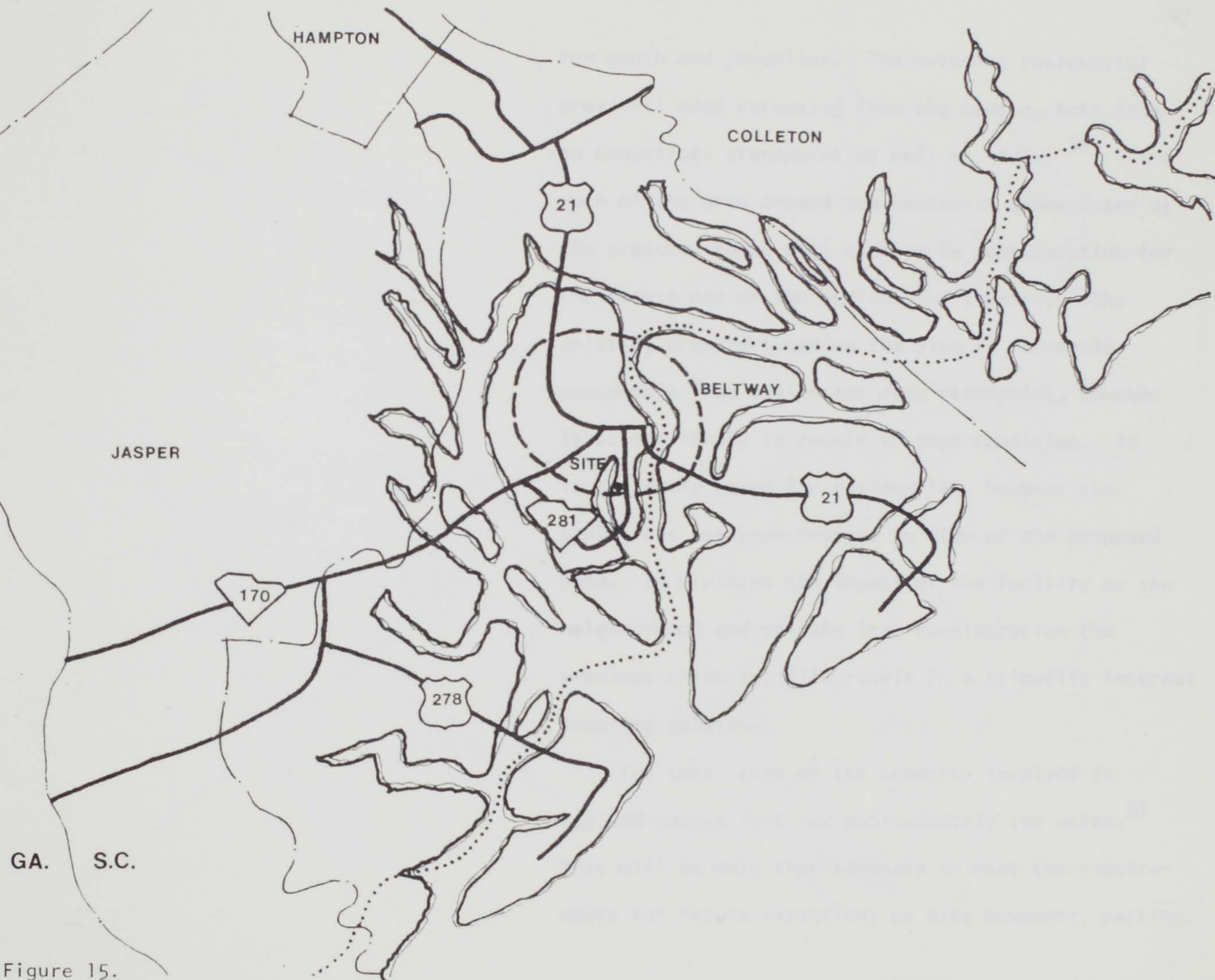


Figure 15.

MAJOR HIGHWAYS



for youth and juveniles. The existing residential area will need screening from the center, both from an acoustical standpoint as well as visual.⁵² Since much of the area around the center is undeveloped at the present, there will need to be consideration for the future use of the surrounding property. The existing area surrounding the site is presently acceptable from a pleasant view standpoint, however it is not likely to remain in that condition. It is currently zoned for residential, however the zoning has not been revised in view of the proposed road. To minimize the impact of the facility on the neighborhood and to take into consideration the previous criteria, will result in a primarily internal focusing solution.

The total area of the property involved is 453,000 square feet, or approximately ten acres.⁵³ This will be more than adequate to meet the requirements for future expansion, on site movement, parking,

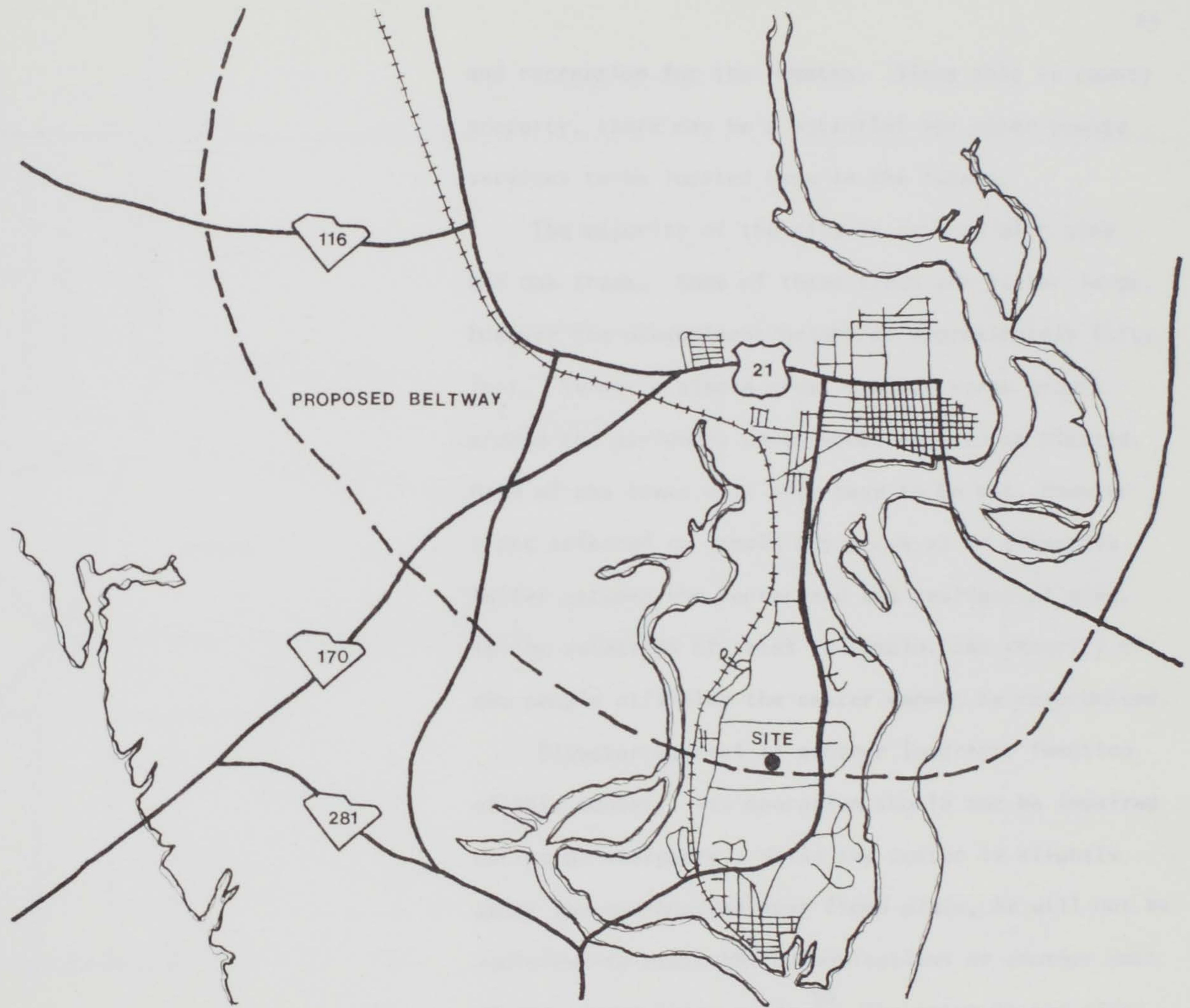


Figure 16.

ACCESS

and recreation for the inmates. Since this is county property, there may be a potential for other county services to be located here in the future.

The majority of the site is covered with pine and oak trees. Some of these trees are rather large, however the predominant height is approximately fifty feet. There is also a great deal of scrub growth around the periphery which would have to be cleared. Many of the trees will also have to be cut, however those selected to remain may serve as an effective buffer between the center and the residential area. In the selection of trees to remain, the security of the people utilizing the center cannot be compromised.

Disaster control is another important function of this center. Its operation should not be impaired during an emergency. While the center is slightly above the one-hundred-year flood plain, it will not be judicious to place the communications or another part of the center below grade.⁵⁴ The trees on the site

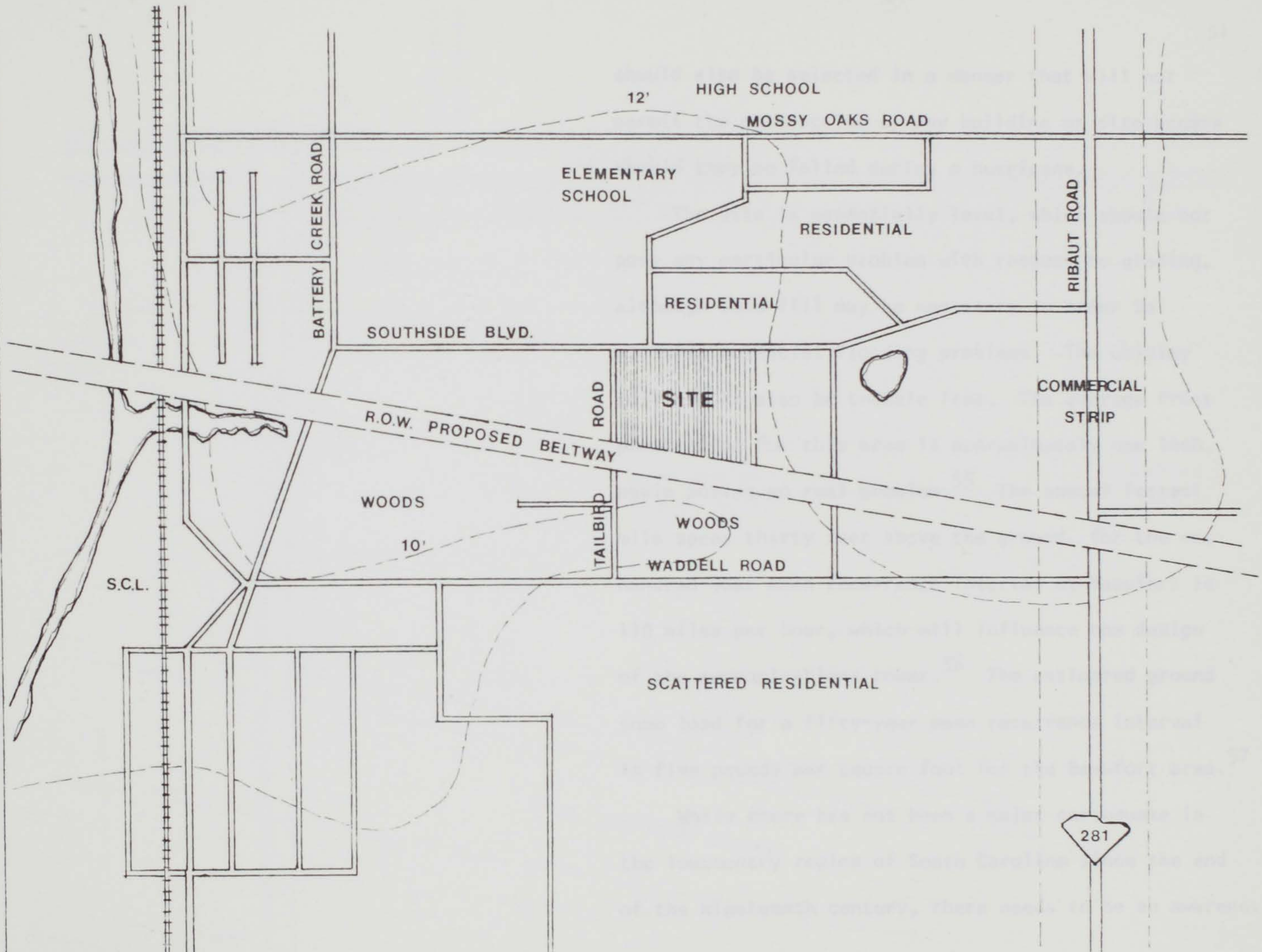


Figure 17.

LOCATION

should also be selected in a manner that will not permit the obstruction of any building or site access should they be felled during a hurricane.

The site is essentially level, which should not pose any particular problem with respect to grading, although some fill may be necessary in order to minimize potential flooding problems. The chipley soil should also be trouble free. The average frost penetration for this area is approximately one inch, again posing no real problem.⁵⁵ The annual fastest mile speed thirty feet above the ground, for the one-hundred-year mean recurrence interval at Beaufort is 110 miles per hour, which will influence the design of the communications tower.⁵⁶ The estimated ground snow load for a fifty-year mean recurrence interval is five pounds per square foot for the Beaufort area.⁵⁷

While there has not been a major earthquake in the lowcountry region of South Carolina since the end of the nineteenth century, there needs to be an awareness

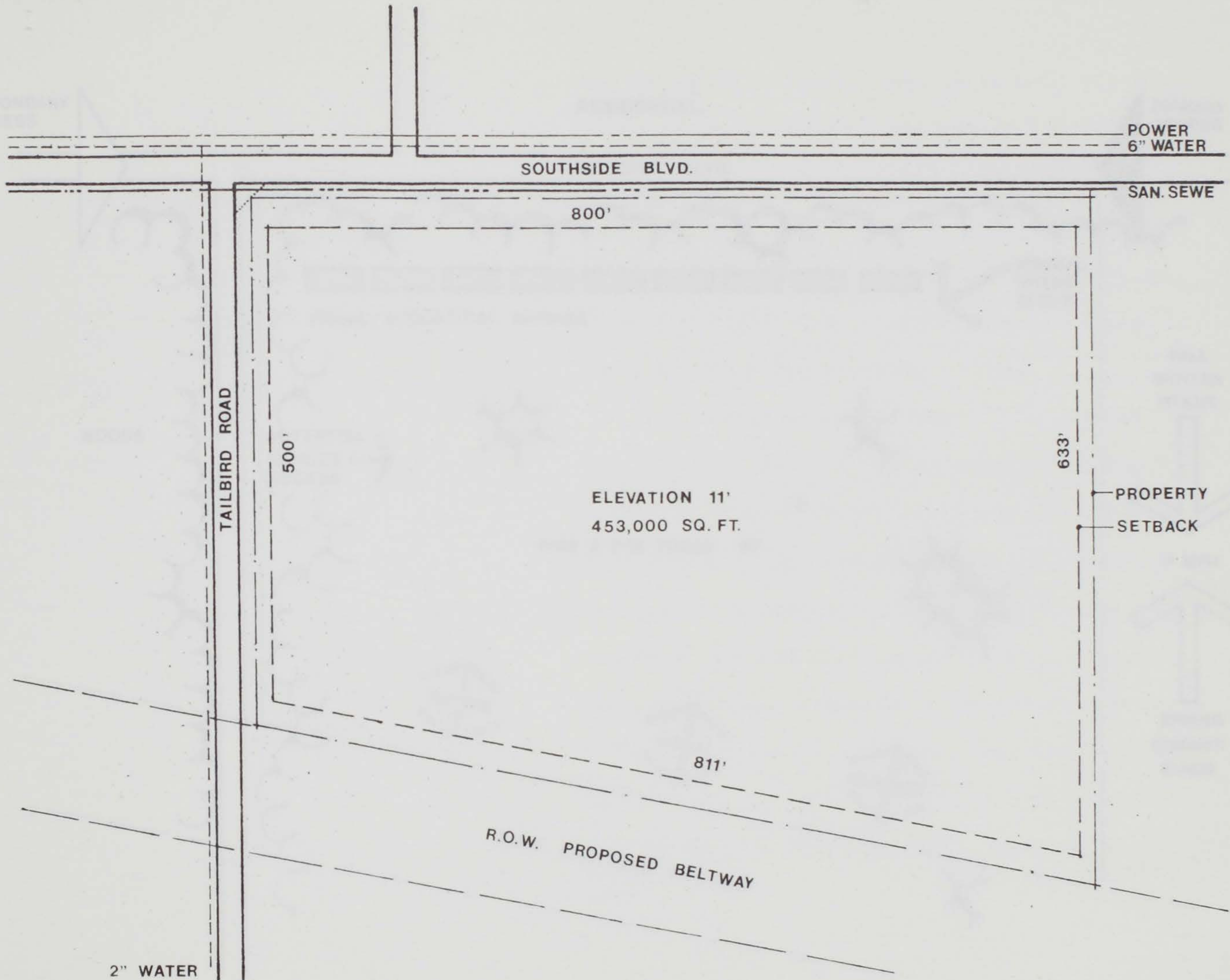


Figure 18.

UTILITIES



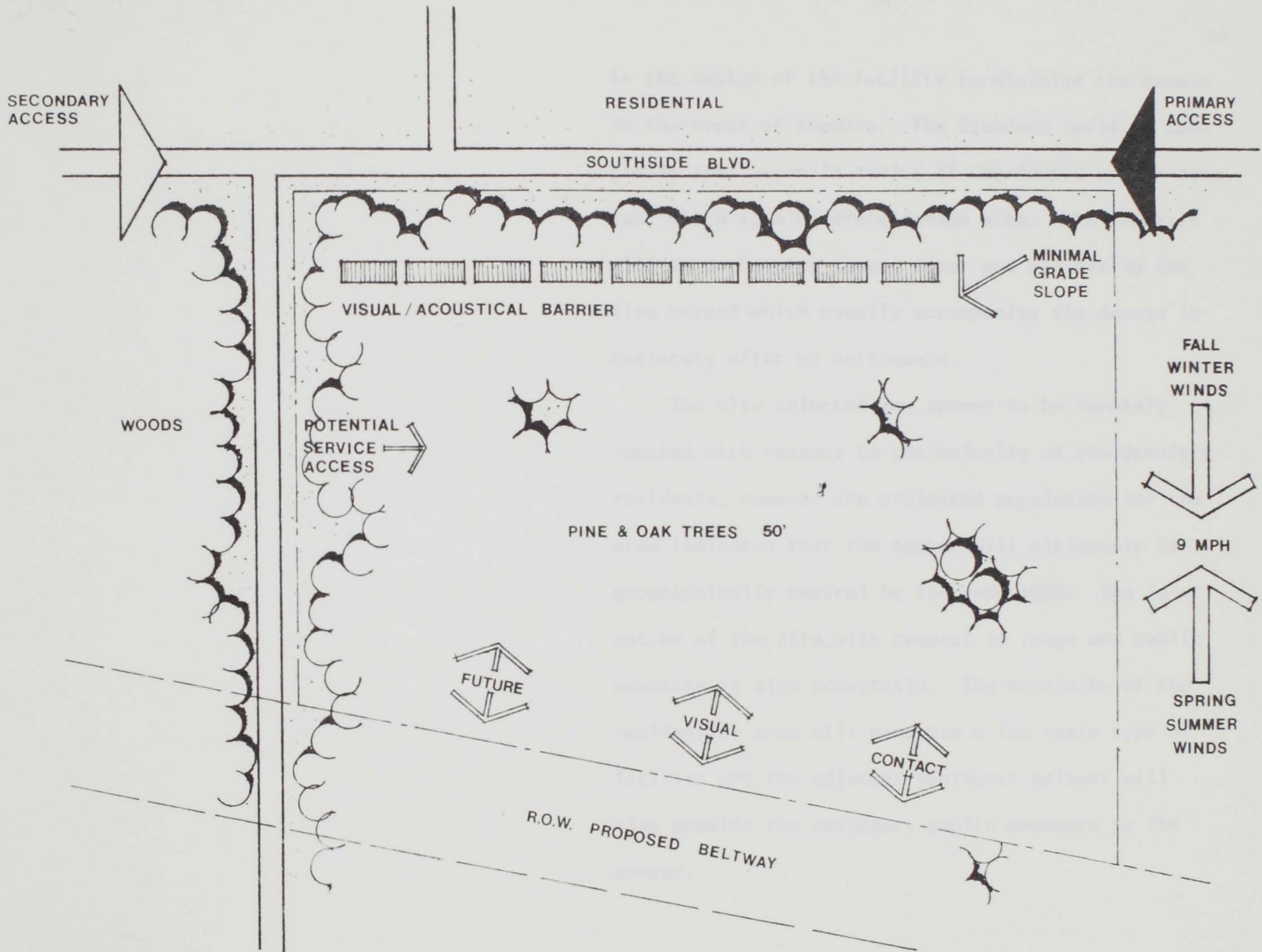


Figure 19.

ANALYSIS



200'

in the design of the facility to minimize the damage in the event of tremors. The Standard Building Code places a ninety-mile radius of Charleston within zone two, which is a moderate damage area. The emphasis will be on keeping access clear and minimizing the fire hazard which usually accompanies the damage immediately after an earthquake.

The site selected may appear to be remotely located with respect to the majority of the Beaufort residents, however the projected population for the area indicates that the center will ultimately be geographically central by the year 1990. The location of the site with respect to image and public exposure is also acceptable. The proximity of the residential area will generate a low scale type of facility and the adjacent southwest beltway will also provide the necessary public exposure to the center.

The overall characteristics for the site on Southside Boulevard are good. They should provide a sound basis for the design of the Beaufort County Law Enforcement Center.

PROGRAM

PROGRAM

There are three major areas that will be housed in this law enforcement complex. The first segment will be law enforcement, consisting of the Beaufort County Sheriff's Department, the Beaufort Police Department, and the Port Royal Police Department. The second area will be the County Detention Center which will house all those people being detained by the above law enforcement agencies as well as any other police agency having jurisdiction in Beaufort County. The third section of the facility will be the court complex. The courtroom will be for the use of the Beaufort County Magistrates' Court, the Beaufort City Records' Court, and the Port Royal Records' Court. Offices for the three judges, as well as the County Attorney, the Public Defender, and the Probation and Parole Board will also have to be provided.

The first section of the program is problem and issue definition as determined from studying facilities with similar goals and objectives.

The second section is a compilation of the major areas for each segment of the facility, with brief comments relative to each area. Also included are sketches which indicate the primary internal relationships among each of the sub spaces for each area.

The final section is a summary of the major design criteria for each individual space including the square footage required.

PROBLEM STATEMENT

The purpose of this comprehensive project is to design a facility that will be flexible and responsive to the needs of the people, and the contemporary law enforcement problems of Beaufort County. It should be able to accommodate those needs for the next fifteen years, with the option of expansion at such time as it becomes necessary.

The solution should seek to actively coordinate the efforts of those agencies in the county involved with law enforcement including the Beaufort Police Department, the Port Royal Police Department, the County Sheriff's Department, the County Detention Center, the County Magistrates' Court, the Beaufort Records' Court, the Port Royal Records' Court, and their adjunct functions.

ISSUES

Security. One of the most necessary issues regarding a law enforcement center is security. The security of the center must be provided in such a manner so as to not intimidate the individuals utilizing the center or the public at large.⁵⁸ This may be achieved through a concept of security zoning within the facility. The civil defense needs of the county must also be considered when security is an issue. Due to the location of Beaufort County, provisions must be made for resisting hurricanes, as well as the remote possibility of an earthquake.

Flexibility. It will be necessary to provide accommodations for a high degree of internal flexibility, as well as the capacity for expansion.⁵⁹ Zoning for acoustics, fire protection, and security should also be considered.

Duplication. This is the basic problem with operating independent police and detention facilities within the same county. Consolidation of agencies permits the elimination of redundant functions and the improvement of cooperation between agencies. Some of the major areas that lend themselves to consolidation are: records, communications, and lab services.⁶⁰ A consolidated detention facility provides a greater opportunity for equality of confinement than several separate facilities. Since many common functions will be eliminated, money will become available for application toward new programs and equipment.

Circulation. There are many complex relationships in a facility such as this, especially in the detention areas. The problem is compounded by the fact that there are three security zones or classifications in the center. There is only a small section of the facility that is subject to unrestricted public use.

Another area of the facility is limited to the public on official business. There is a third zone that does not allow access by the general public.⁶¹

Juvenile Programs. Many criminal careers are begun while the offender is still a juvenile. After an offender has had contact with the detention phase of the criminal justice system, rehabilitation becomes much more difficult. This dictates special handling for juveniles who come in contact with the police. The facilities at the center where juveniles are dealt with need to be separate and as non-institutional as possible.⁶²

Privacy. Privacy is a major requirement for the police functions of a law enforcement center.⁶³ This includes varying degrees of visual and acoustical privacy. Many different types of people, such as victims, informants, and juveniles, use a police facility,

and their privacy must be respected. Privacy in the detention section is also important, however it must be achieved within the constraints of safety and security.

Protection of the Property. Circulation onto the site should be arranged so that the public has direct access to the lobby. The rest of the site should be restricted to authorized vehicles only. A ten foot security perimeter is also advocated, with any potential hiding places eliminated.⁶⁴

Public Image. The proper public image of a police facility is mandatory in order to insure the success of the police goals and programs.⁶⁵ The facility should present an inviting appearance and at the same time provide the necessary security for those people in the facility.

Segregation. Mandatory classification segregation of offenders is a relatively recent development in the field of corrections. It is rapidly gaining credibility as a necessary detention facility administrative device for providing more appropriate confinement.⁶⁶ This segregation refers to the type of offense, unconvicted vs. convicted, juveniles vs. adults, mental cases, and sex. The main thrust of segregation is to minimize the alleged offenders' exposure to the criminal justice system.

Transportation of Prisoners. One of the most beneficial aspects of consolidation is the elimination of the transportation of detained individuals. This is traditionally a hazardous and expensive procedure.⁶⁷ Provisions will have to be made for the secure transfer of people from the detention area to the court room.

Life Safety. Since people are detained in locked areas, their protection must be uppermost in the priorities for the design of the facility. Detection devices, as well as special extinguishing systems, are major design criterion, as is an emergency exit plan.⁶⁸

Civil Defense. Since Beaufort is designated as a disaster control center, their facility must be capable of operation under the most adverse of circumstances. These circumstances include natural disasters, foreign attack, and civil disorders. The primary requirements for the operation of a civil defense facility are adequate power and communications to coordinate relief efforts.⁶⁹

Alcoholics. Alcoholics are in the process of being removed from the criminal justice system, however it will be several years until the provisions are

completed in the Beaufort area. Until such time, it will be necessary to house these individuals separately from the other detained people.

Electronic Surveillance. Electronic surveillance is to be used only as a secondary security system. Its effectiveness is acceptable, provided the limits of the system are not exceeded and it is not expected to replace interpersonal contact.⁷⁰

Ownership. There are some practical problems that would not permit the total integration of the agencies utilizing the facility, although maximum cooperation should be the goal of all concerned. The procedure adopted by most other agencies with similar arrangements is that the county is the proprietary agency, with the other departments paying a prorated share of the costs.⁷¹ All space allotments will be determined in advance and adhered to after the construction of the facility.

Staff. The most expensive provision in this facility will be supplying the necessary manpower. This one facet of operation is a major shortcoming in most detention facilities.⁷² The maximum amount of personal supervision with the least number of staff is the desired objective, regardless of the total size.

Construction Technology. Modern construction technology is permitting the profession more freedom in the selection of materials for high security type installations. One of the most notable of these is security glass. This type of material may be substituted for steel bar construction to help reduce the image of a jail as a cage.⁷³

Budget. Construction is generally considered a one-time cost, whereas the annual expense of those personnel required to overcome inadequate and inefficient facilities is a continuing and

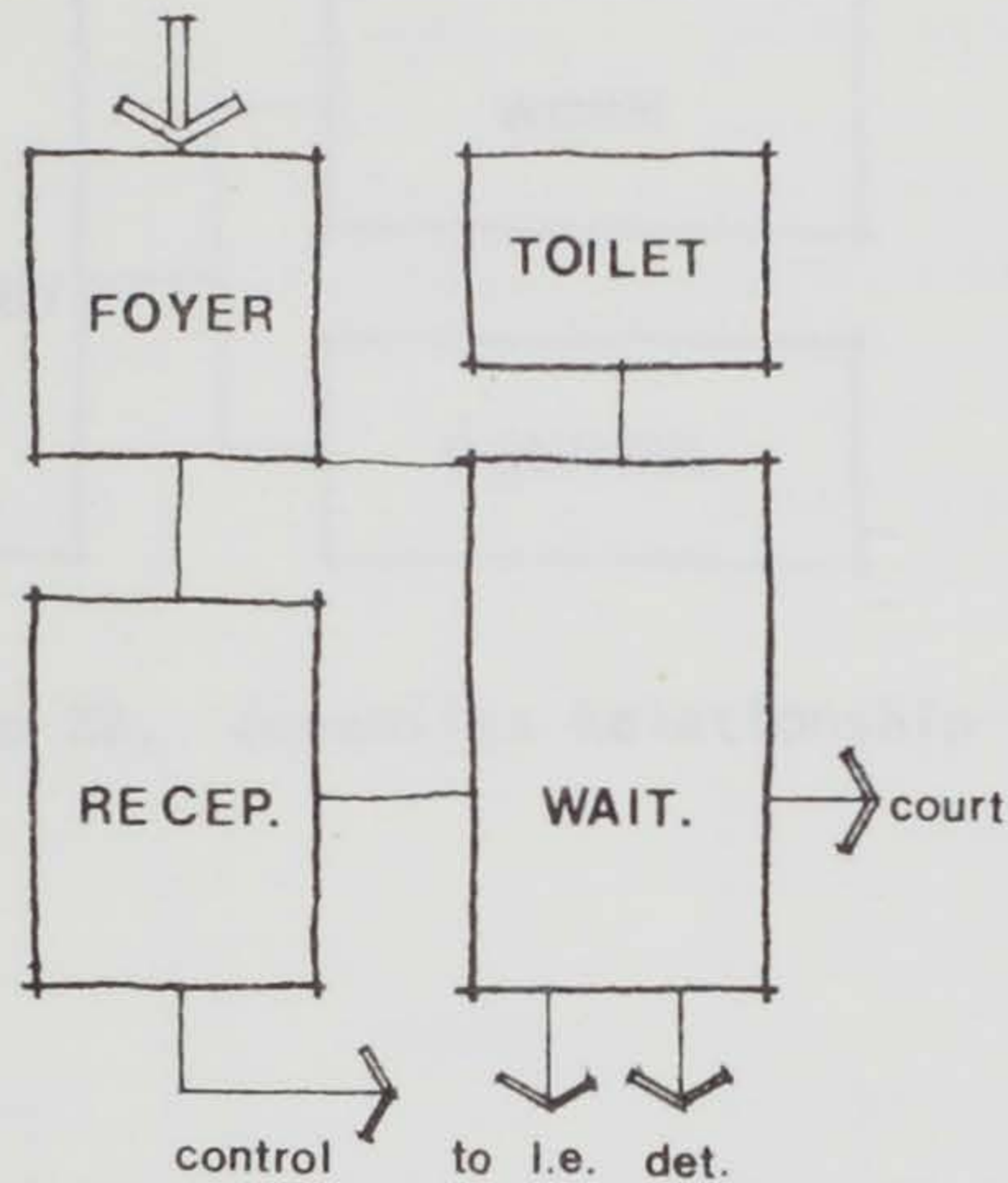
LAW ENFORCEMENT

Figure 20. Lobby Relationship

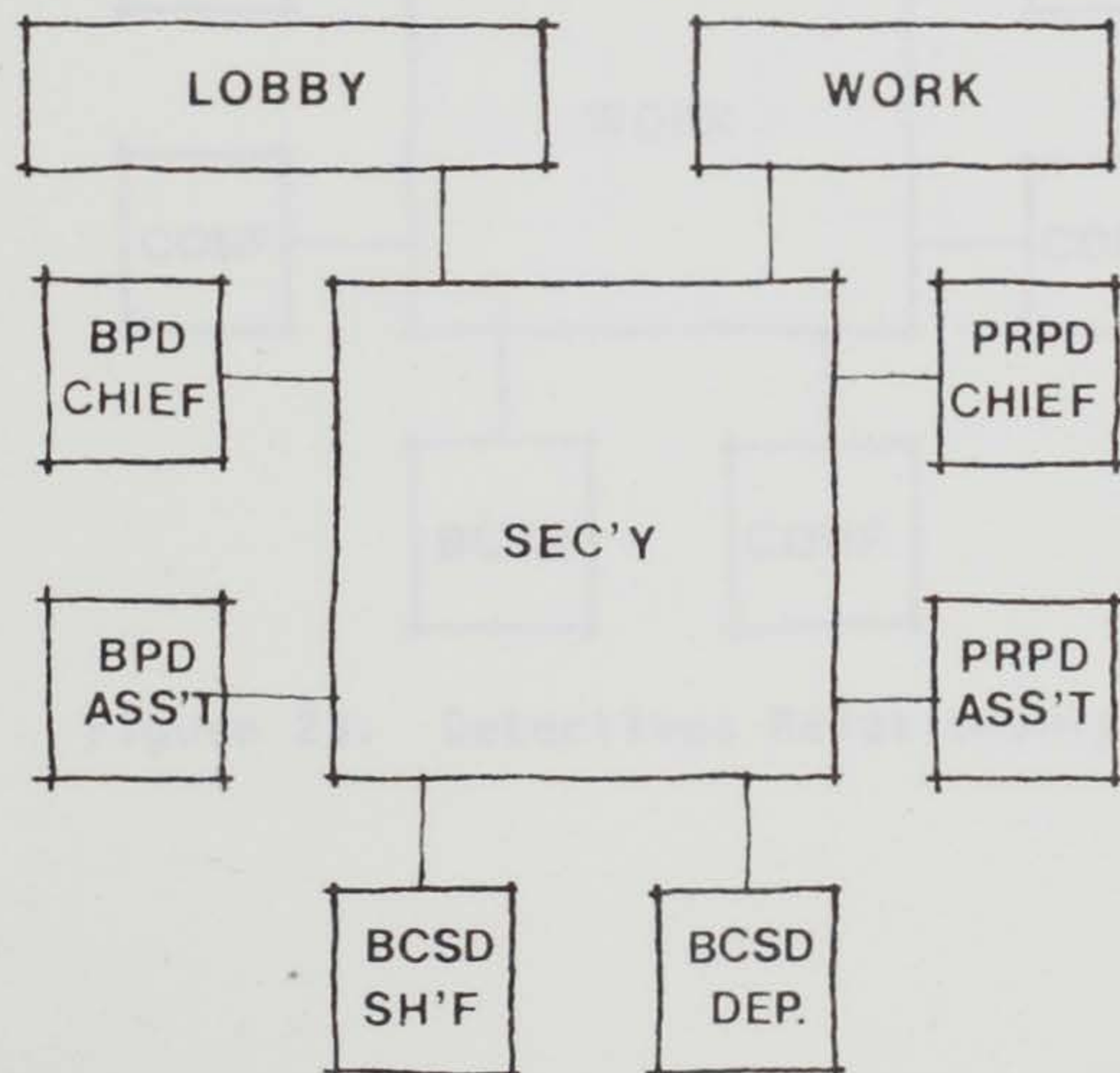


Figure 21. Law Enforcement Administration Relationship

Lobby. This facility is of such a size that the major functions of law enforcement, detention, and the courts may utilize a common lobby for the reception of the public. This area should be as attractive and non-institutional as possible. Since the potential for interpersonal conflict is especially high in this area, every effort should be made to reduce the display of hostilities upon arrival to the center.⁷⁴

Administration. The department heads and their assistants for each of the three agencies occupying the facility, as well as their administrative and clerical aides will be located in this area. The public will also have a great deal of contact with these administrative officers. The consolidation theory will be reinforced by the organization of the offices in this area. This consolidation will also permit the use of common equipment by the staff of each department.

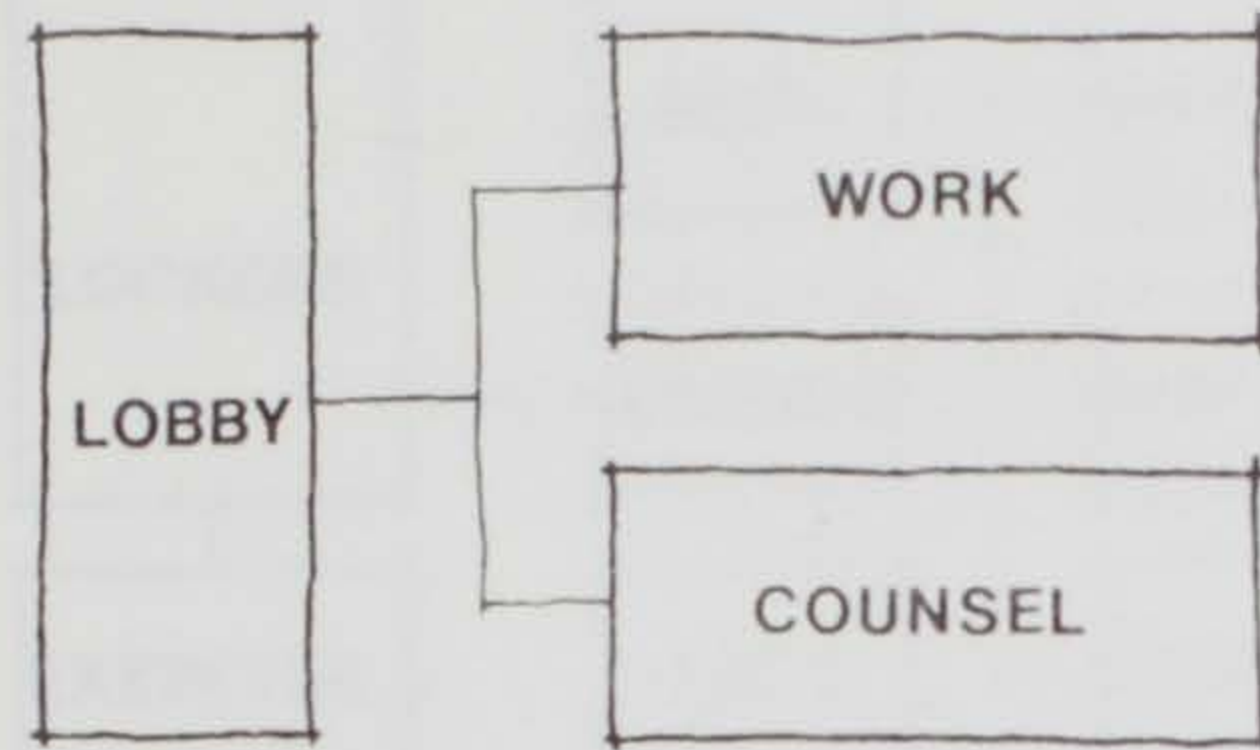


Figure 22. Juveniles Relationship

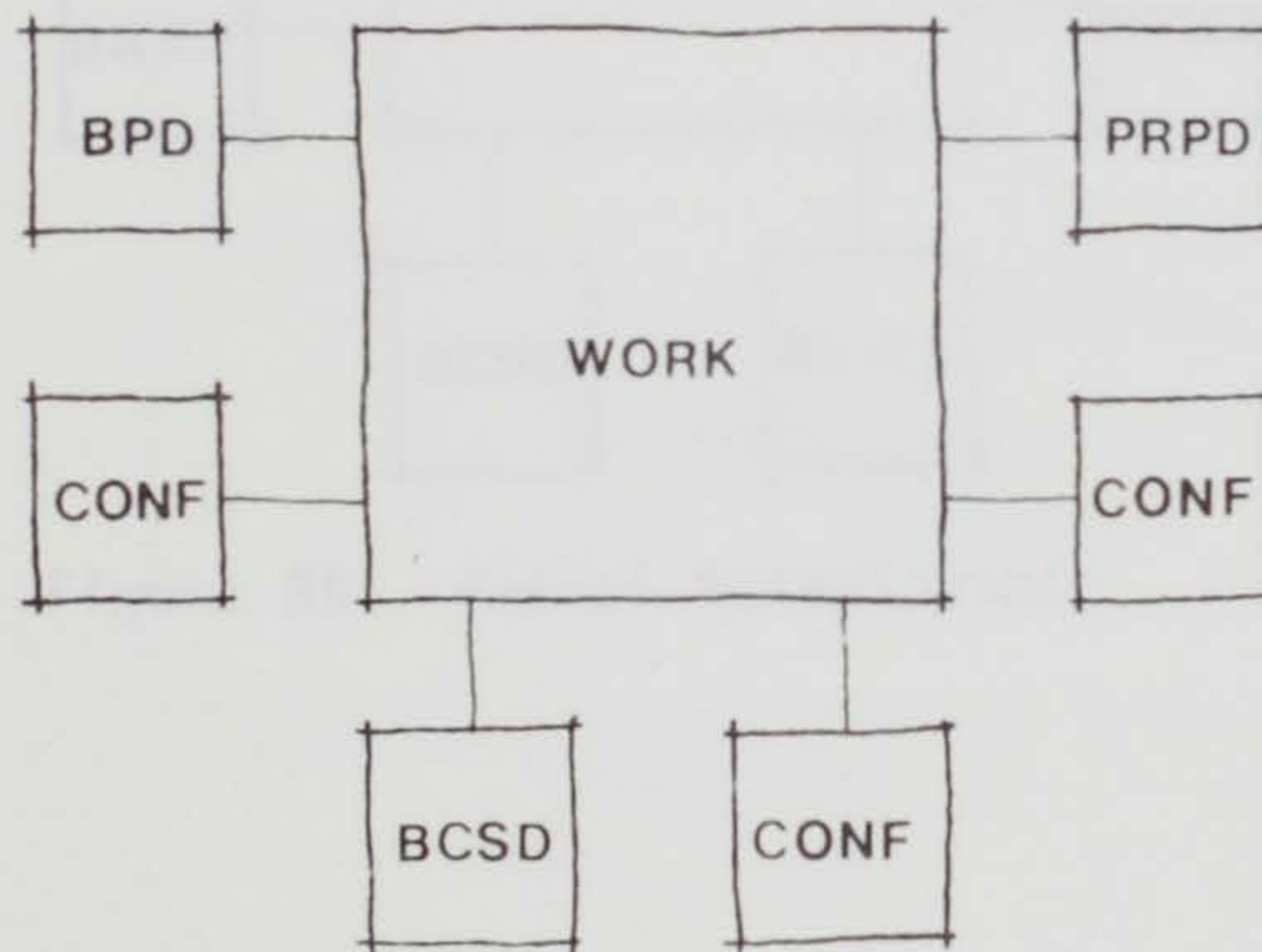


Figure 23. Detectives Relationship

Juveniles. Current law enforcement trends dictate an increase of special emphasis on juvenile programs as a potential crime preventive measure. The youthful offenders contact with the adult sections of the law enforcement agency should be as minimal as possible. A residential character is also more conducive to the activities occurring in this area.

Detectives. The detectives need to be in close proximity to the lobby, evidence storage, and the records. Visual and acoustical privacy is another important consideration for this area due to the wide variety of people that they come in contact with. Private offices for the detectives are to be avoided since they do a less than desirable job of encouraging efficiency and teamwork.⁷⁵ An open office plan with appropriate screening will be very beneficial to encouraging maximum interaction between the individual officers and agencies.

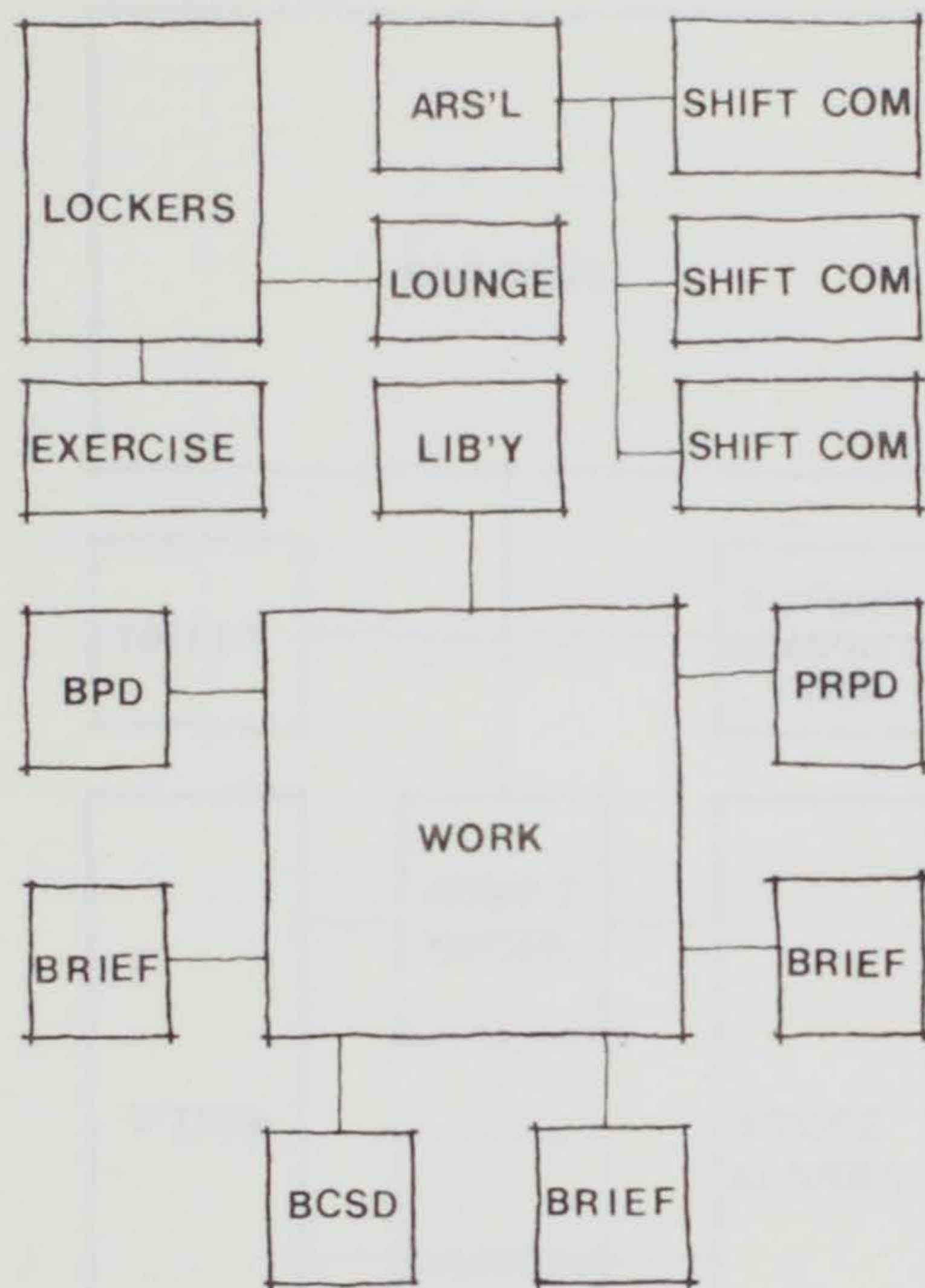


Figure 24. Patrol Relationship

Patrol. This is the staging area for the uniform patrol division. The officers in charge of each patrol unit, as well as their clerical aides, will be located here. Functions such as report writing, the library, and the staff lounge will also be in this area. The three shift commanders' offices will also be located in this area so that they may conduct briefings, observe the staff entry, and maintain control over the arsenal. All department firearms and ammunition will be kept locked in this area. The exercise room should be immediately adjacent to the locker rooms.

Communications. This is the most vital area of a law enforcement facility.⁷⁶ The records, an integral part of the communication system must be housed in such a manner so that the direct transfer of information is not impeded. This area requires a high degree of security as well as a special fire

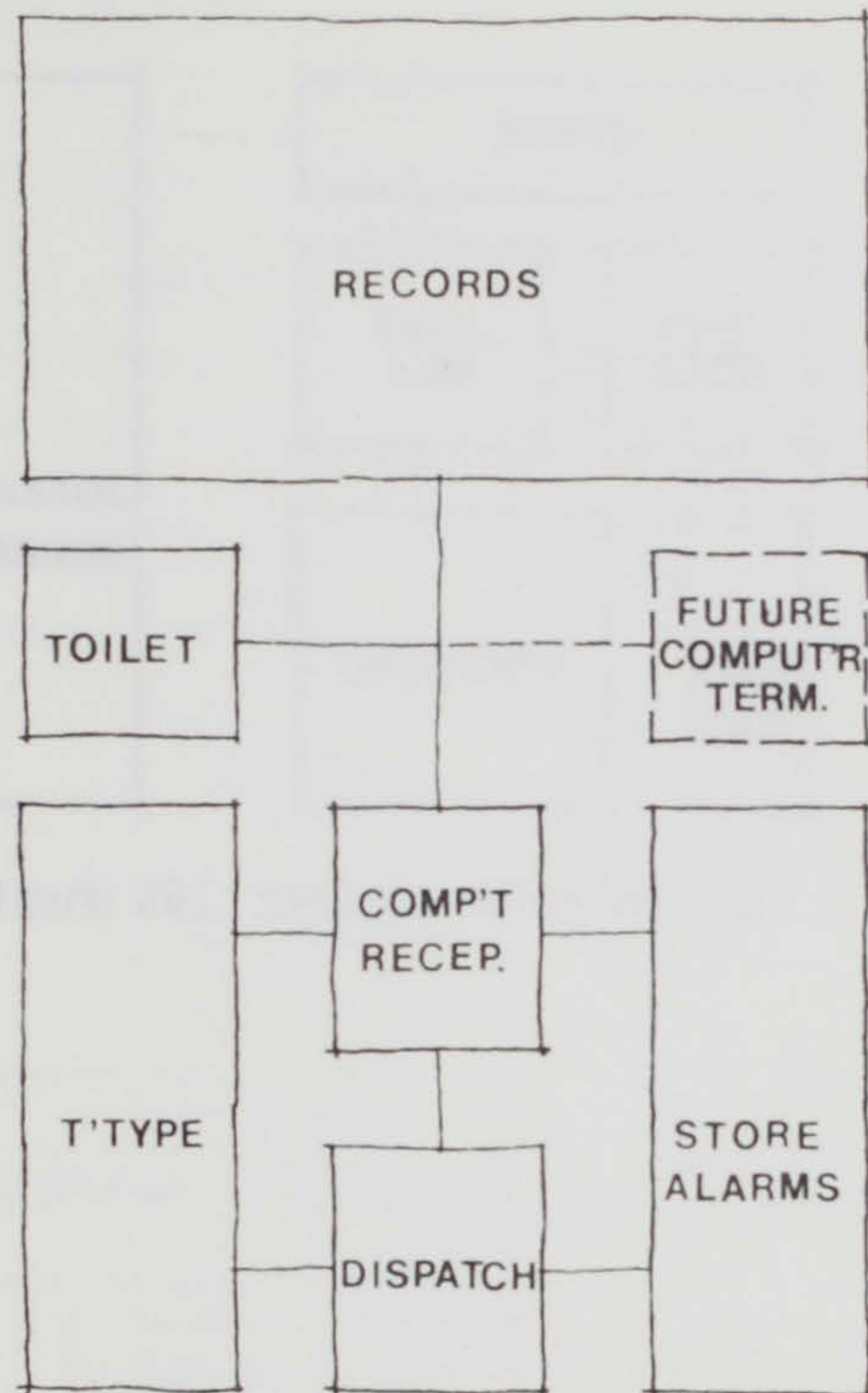


Figure 25. Communications Relationship

extinguishing system. The destructive qualities of water prohibit its use in this area, therefore, a halogen extinguishing system is recommended.⁷⁷ A four-hour fire rating is also desired for the communications suite.⁷⁸ This protection will prove advantageous in a natural disaster as well. The records area must be accessible to both the detectives and the general public for fines and licenses.

A single communications system for the county would be the ideal situation. However, from a realistic viewpoint, it will probably be several years until all emergency services are coordinated through a central system, such as the 911 telephone number. Since this facility would be the most logical location for such a dispatching center, provision will be made for the necessary future additions.

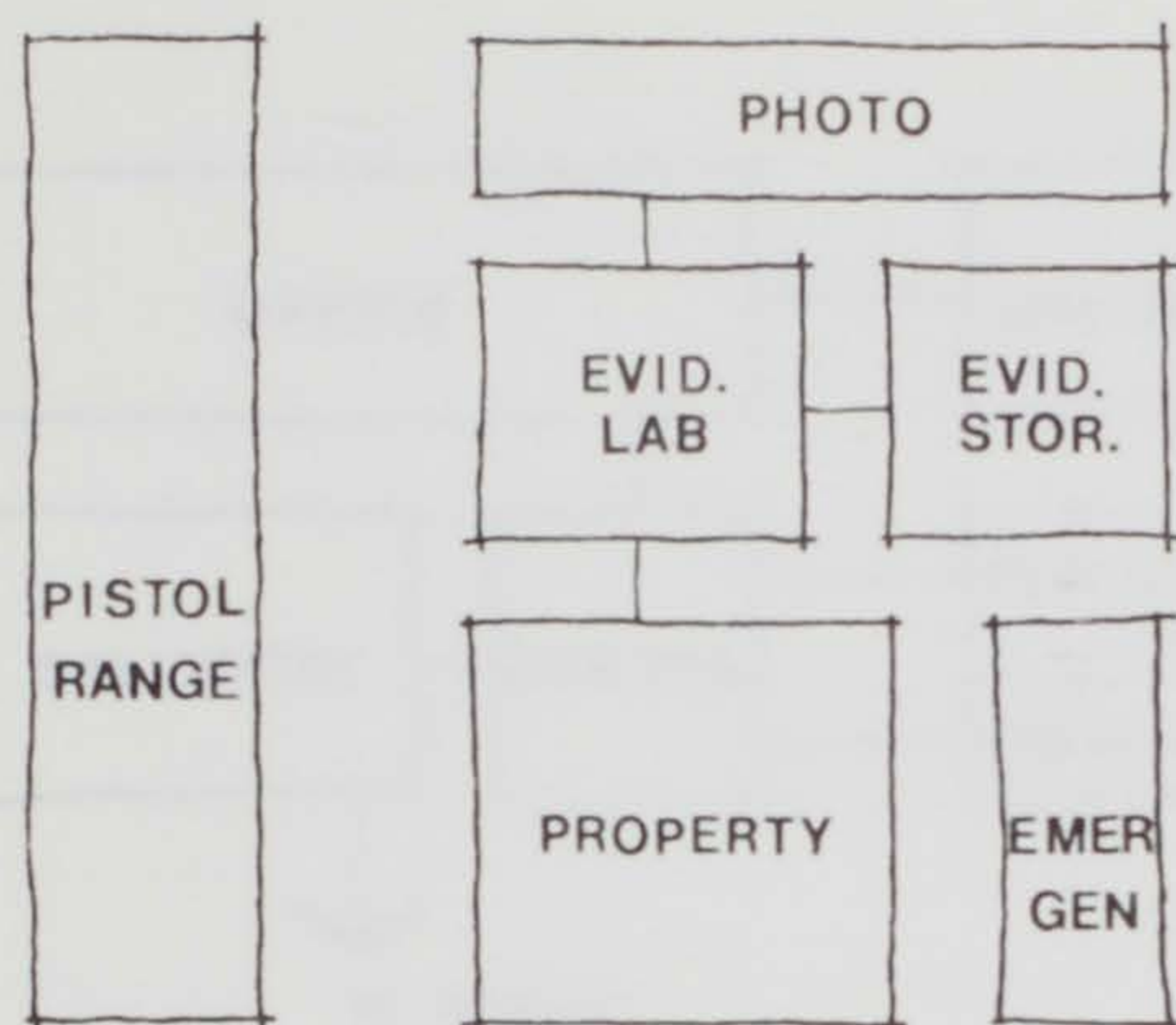


Figure 26. Service Relationship

Service. The photo lab and the evidence lab should be able to handle routine cases without assistance. Their main purpose will be to collect and preserve evidence. Special cases that require the use of sophisticated equipment will be sent to a larger lab for analysis. The capital investment for an evidence lab may run as high as \$500,000, therefore precluding its use except in areas of high demand.⁷⁹ The pistol range is included to provide the officers with the opportunity to become proficient rather than merely adequate with their firearms. The range may also be used for public instruction. The reserve power generator should be protected from vandalism. The ability to maintain communications and a minimal amount of lighting in the law enforcement and detention areas during emergencies is imperative.

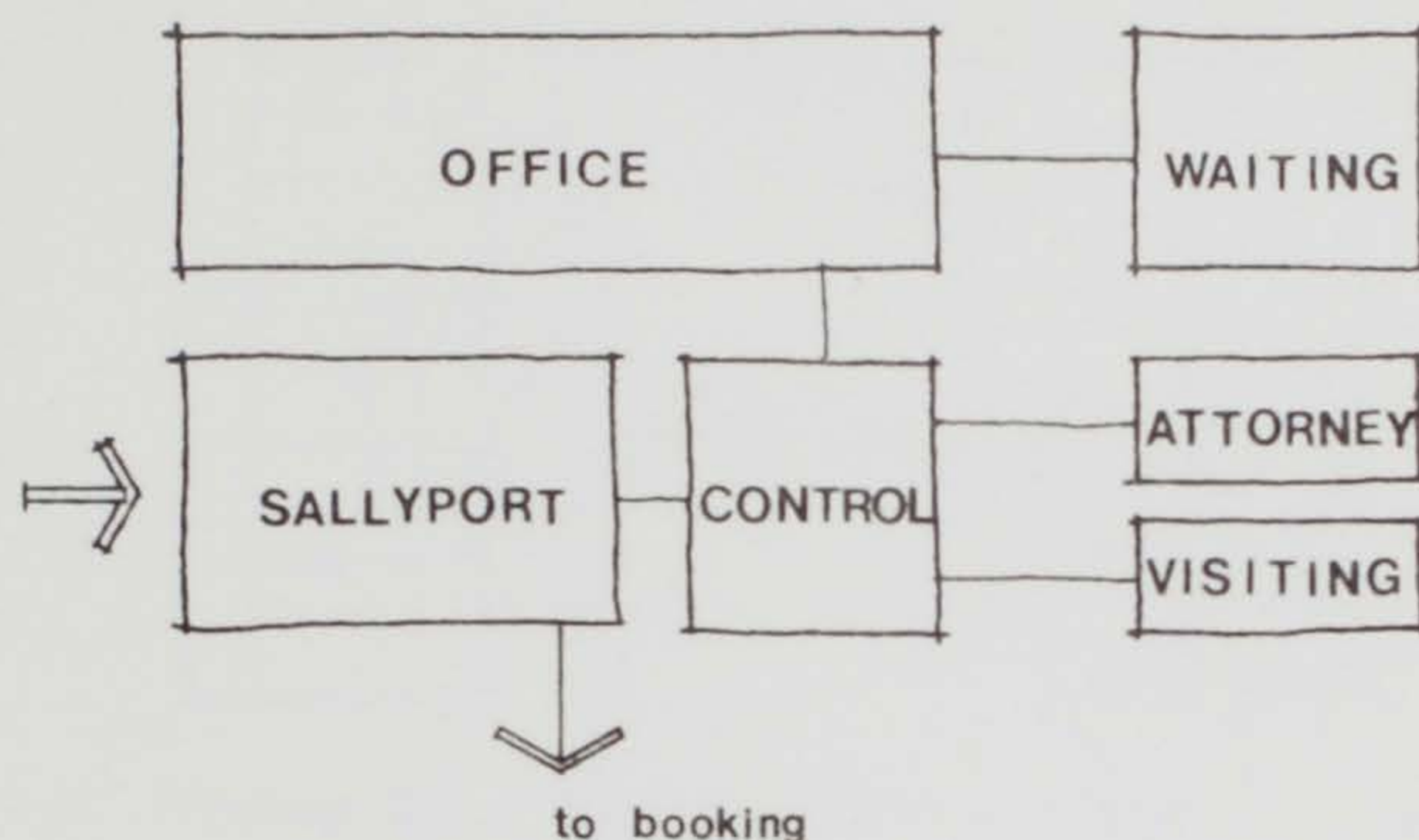
DETENTION

Figure 27. Detention Administration Relationship

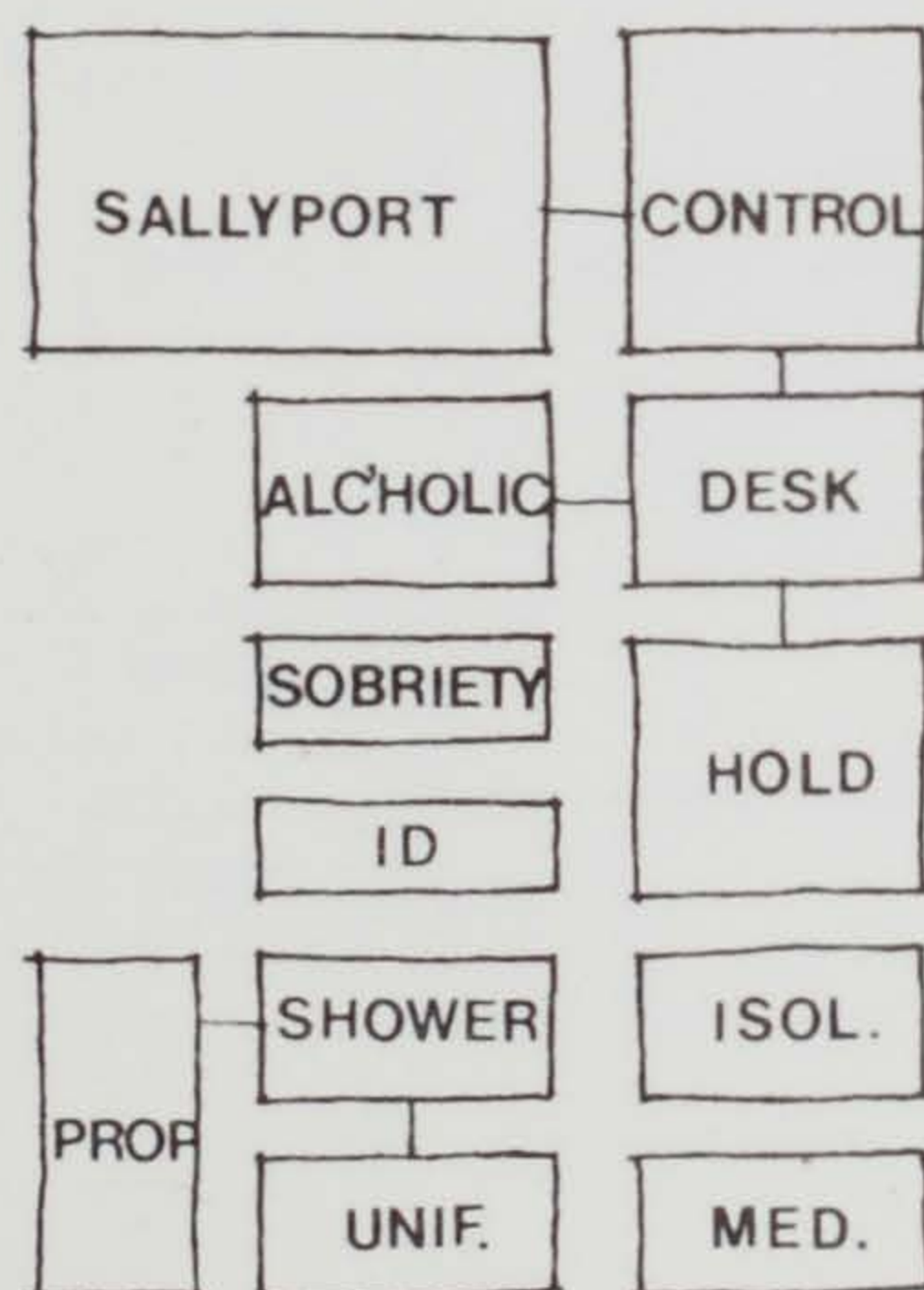


Figure 28. Booking Relationship

Administration. The chief jailors' office should be located immediately adjacent to the visitors' reception for the detention area and not near the law enforcement administration.⁸⁰ It should be located in such a manner so as to be accessible to attorneys, visitors, the booking area, and the control room. The actual operation of the detention facility will be from within a secure, bullet-resistant control room, which primarily controls entry and exit from the facility.

Booking. After a detained individual arrives in the sally port, he will be searched again for weapons. After this search, he will be taken to the booking desk. His personal items will be catalogued and placed in a secure area. He will then be photographed and fingerprinted. If the detention period is brief, and the individual has not committed a serious crime, then he will be placed in a temporary holding room. If he is to be detained for more than approximately

four hours, he will be taken to the shower and issued clothes, then placed in the housing section.

People who are suspected of being inebriated will be checked for sobriety upon arrival. If it is necessary, they will be placed in the special alcoholic holding area until they have sobered up sufficiently to be placed in regular confinement. This holding area is usually near the sally port and constant supervision.

On some occasions it will be necessary to detain people who have not committed a crime, but are awaiting transportation by other authorities. These may include military personnel and runaways.

Housing. The current trend in detention housing is utilizing single rooms as opposed to several people sharing one room.⁸¹ Groups of these single rooms then adjoin a common dayroom. This type of system permits greater security since each man is locked

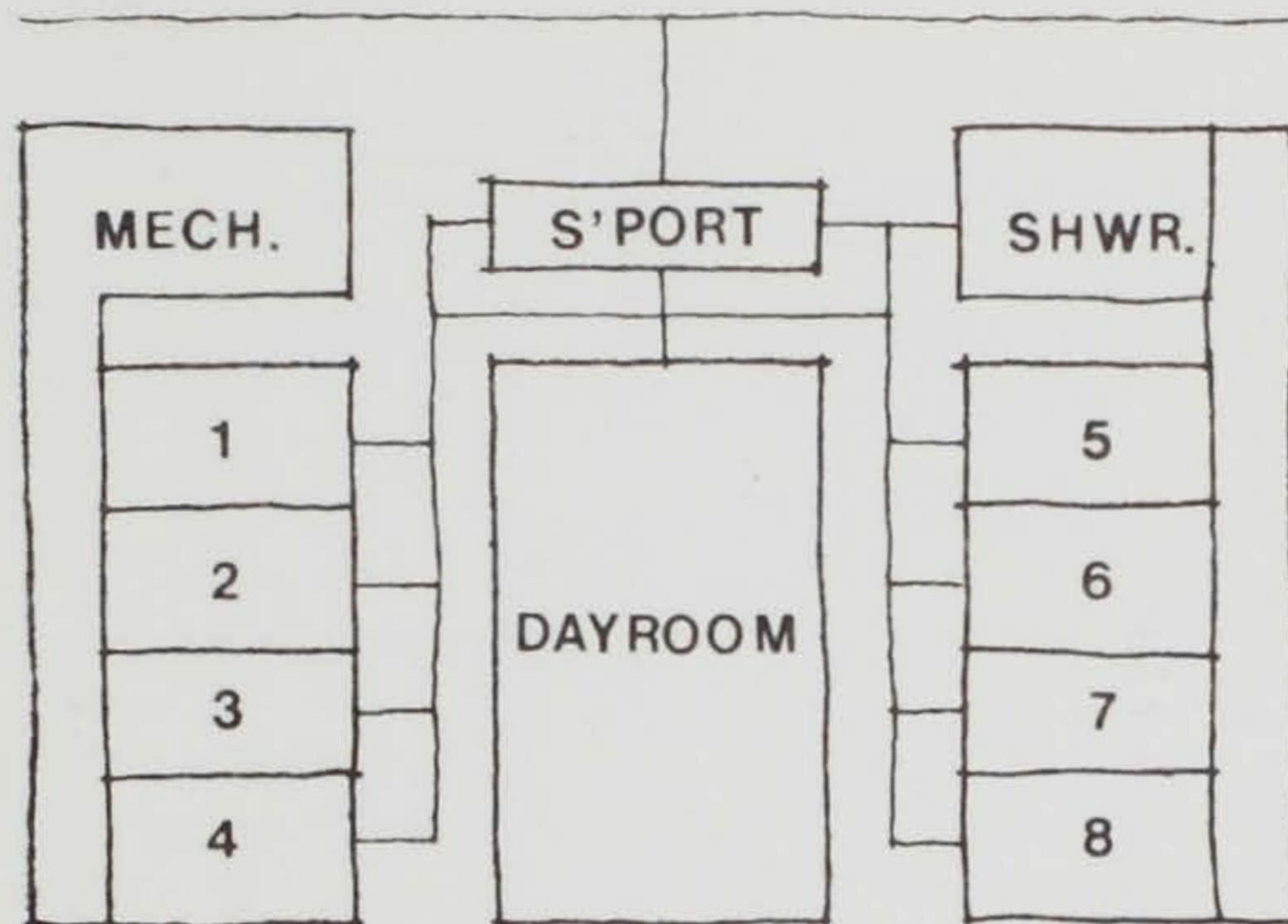


Figure 29. Housing Relationship



Figure 30. Service Relationship

within his own room. This is very important since the identity of some individuals may not be known for extended periods of time. This method is also conducive to grouping people according to their appropriate classification. It also permits grouping in smaller numbers to minimize a detained individual's contact with other potential criminals and criminal methods.

Service. Many of the support functions necessary for a detention center may be provided for internally rather than contracted out. A full service laundry, as well as complete kitchen facilities, would be the most economical method of providing these services. Pay phones should also be provided for the detained individuals' use on a controlled basis.

Due to the nature of this local holding center, full scale recreation facilities will be unnecessary, however it will still be necessary to reduce their

idleness as much as possible.⁸² This may be accomplished by providing reading materials and possibly occasional television privileges. The right to practice religion may not be infringed upon, even while an individual is in custody. Activities that help enhance the social interaction abilities of the detained individuals should be encouraged provided they do not conflict with the safe operation of the center. In all probability, the duration of confinement will be very short in this facility, therefore any programs that are corectional in nature will be limited in their effectiveness. The major thrust should be to preserve the dignity of an individual while he is in confinement.

Acceptance and offices will also be required for the County Attorney, the Public Defender, and the Probation and Parole Board.



Figure 12. Office Organization

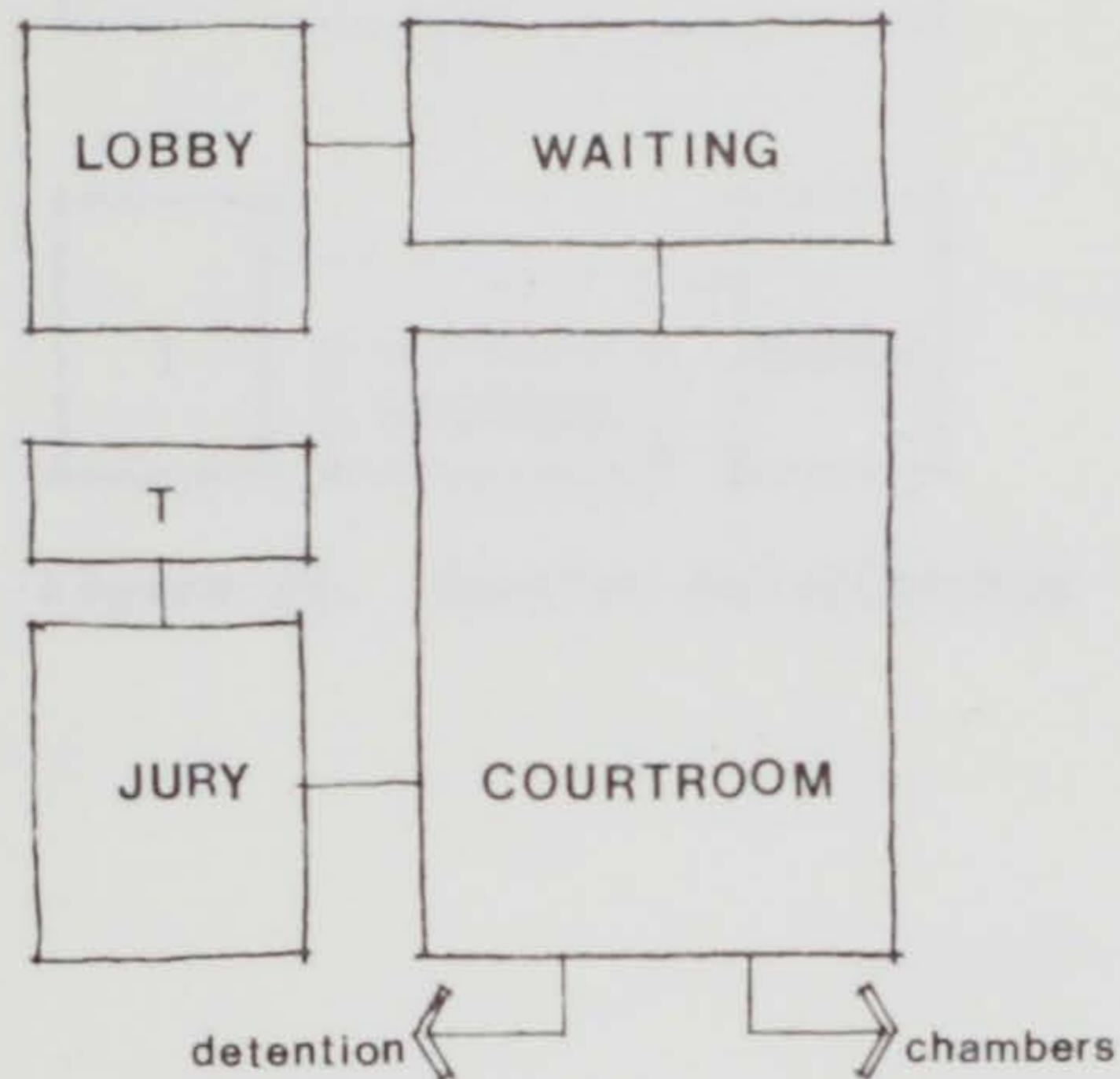
COURTS

Figure 31. Courtroom Relationship

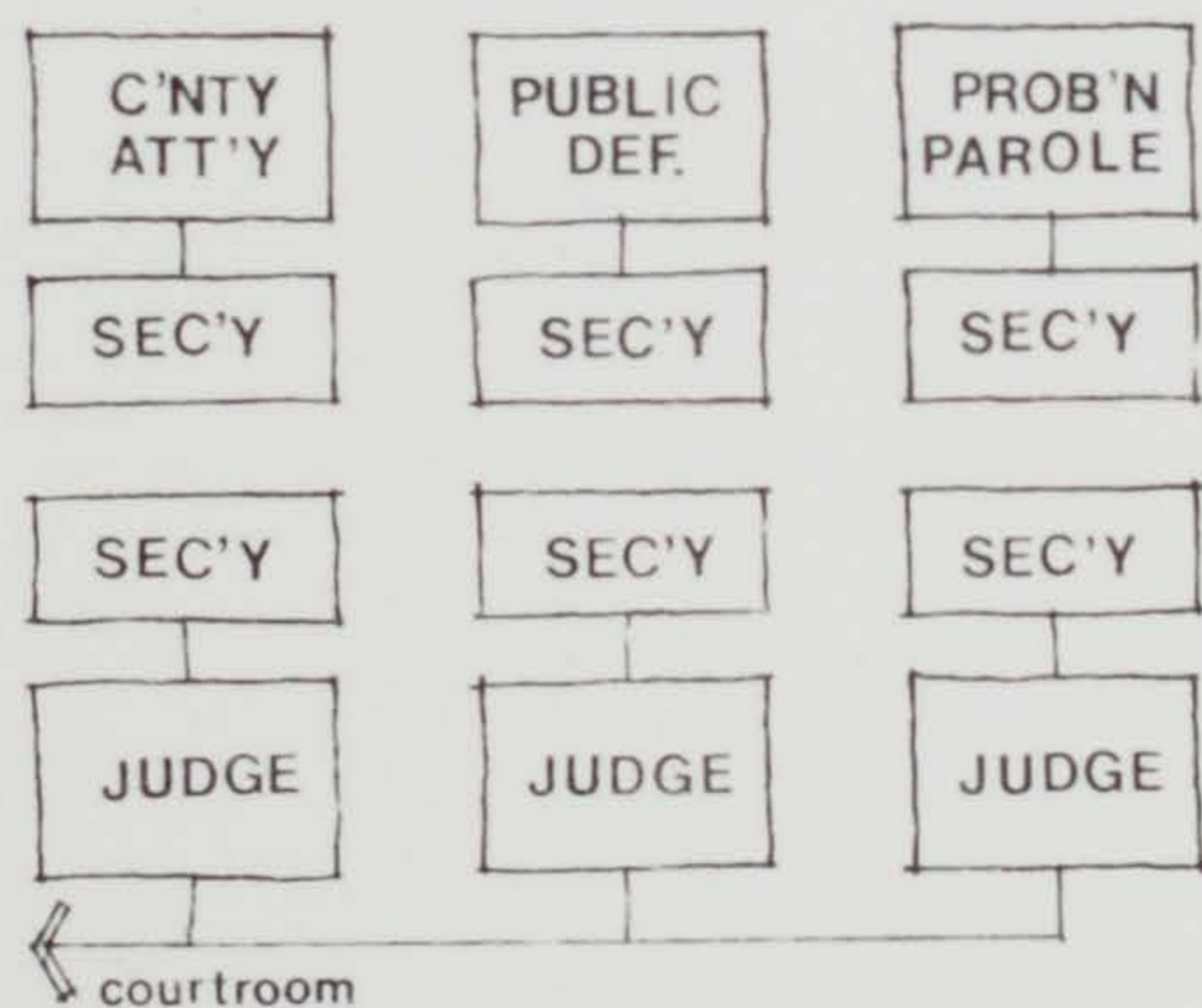


Figure 32. Office Relationship

Courtroom. Based on the volume of court cases that are presently being heard by the County Magistrates' Court, the Beaufort City Recorders' Court, and the Port Royal Recorders' Court, one courtroom will be sufficient to meet the demand.⁸³ The capacity for this courtroom should be approximately fifty people.⁸⁴ There should also be direct access to the jury room from the courtroom. The holding space in the detention area should serve the courtroom as well, in order to avoid a duplication of functions.

Offices. A reception area and chambers will have to be provided for each of the three presiding judges. They will also need a private access to the courtroom. Reception areas and offices will also be required for the County Attorney, the Public Defender, and the Probation and Parole Board.

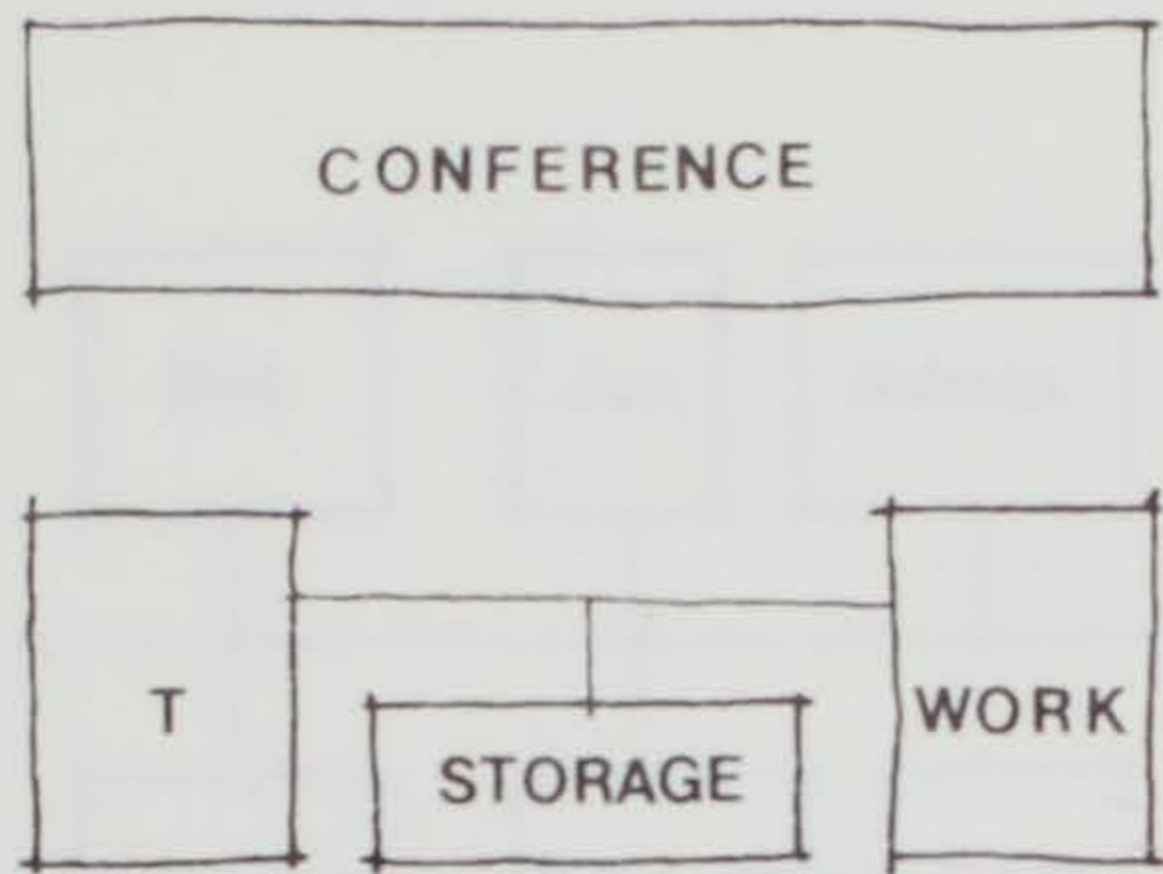


Figure 33. Service Relationship

Service. A large conference room should be provided for use by the public or any of the offices in the facility. Common work and storage areas will also be a requisite for this section of the facility. There should be private toilet facilities for the staff in this area.

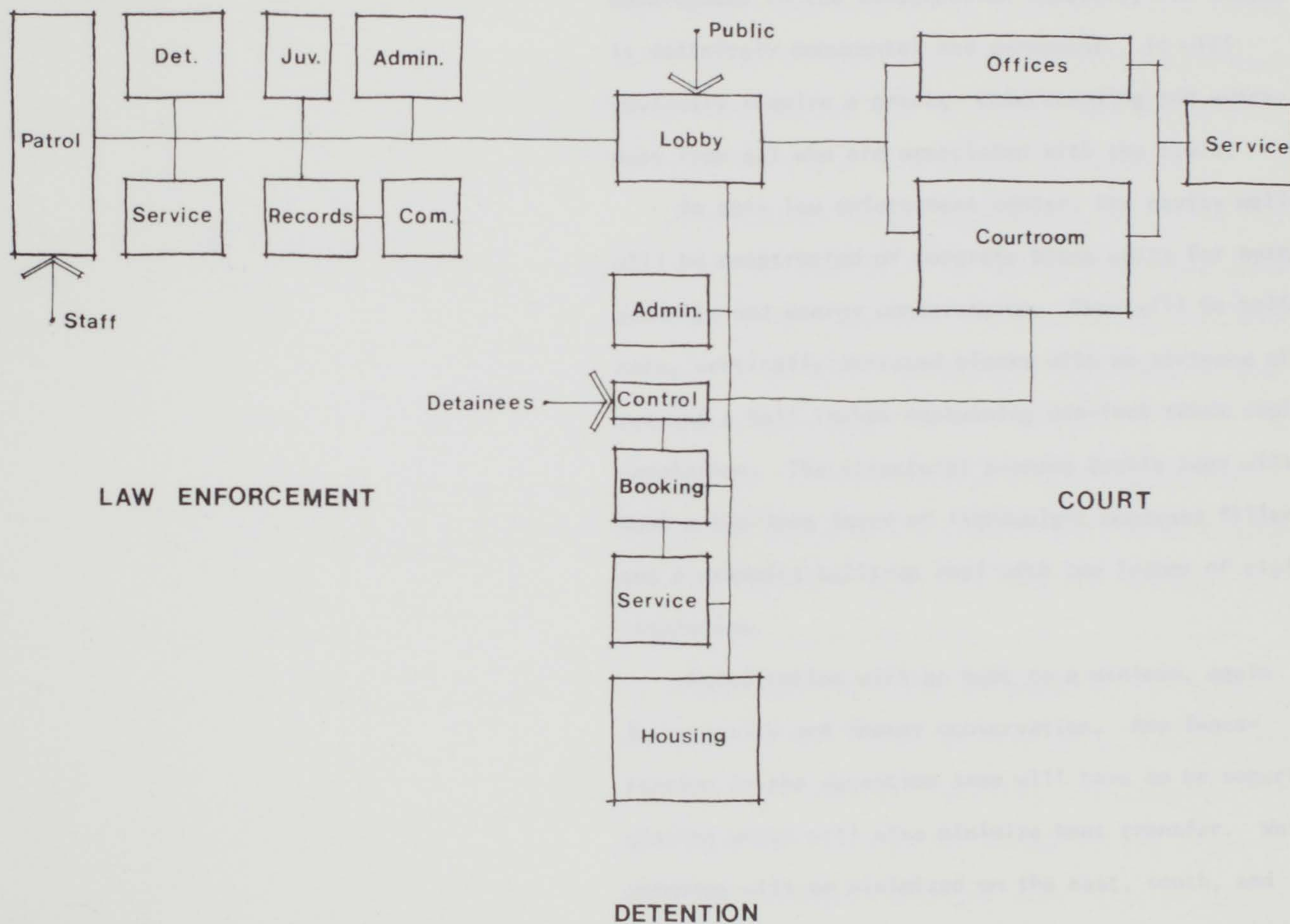


Figure 34.

FUNCTIONAL RELATIONSHIPS

ENERGY

While energy conservation is a relatively recent development in the construction industry, its impact is definitely monumental and permanent. It will obviously require a greater understanding and awareness from all who are associated with the field.

In this law enforcement center, the cavity walls will be constructed of concrete block units for both security and energy conservation. They will be hollow core, vertically striated blocks with an airspace of two and a half inches containing one-inch thick rigid insulation. The structural precast double tees will have a two-inch layer of lightweight concrete filler and a standard built-up roof with two inches of rigid insulation.

Fenestration will be kept to a minimum, again for security and energy conservation. Any fenestration in the detention area will have to be security glazing which will also minimize heat transfer. Wall openings will be minimized on the east, south, and

west sides. Wherever it is possible, these openings will be screened from direct sunlight. The building will also be oriented in such a manner so as to reduce eastern and western wall exposure. The use of double pairs of doors will also reduce heat transfer.

The use of lighting should be carefully controlled. It should be zoned so as to provide light only where and when it is necessary. The need for daytime lighting must be carefully balanced to take maximum advantage of natural lighting.

The entire facility should be air-conditioned. The cost of using forced natural ventilation coupled with the necessary additional security hardware to protect the required openings would be more comfortable, thus minimizing the potential for interpersonal conflict. The facility can be zoned so that only occupied areas are receiving conditioning. This can amount to a substantial savings in the detention area since occupancy averages about fifty percent.

The use of individual HVAC units also minimizes problems in the event of malfunction or sabotage. This concept will also accommodate future expansion with no difficulty.

The resulting energy reduction proposal should indicate a cognizance of the problem as well as suggest a viable solution.

BUDGET

The cost of construction obviously varies according to locale and building type; however, by averaging approximate unit costs, it is possible to estimate the cost of a similar structure. For a law enforcement center with detention facilities, the approximate cost per square foot, for construction only, is \$36.00. The total project cost per square foot will be in the vicinity of \$50.00. Therefore, with a square footage of 46,158, the approximate total construction cost should be \$1,661,688, and the total project cost should be \$2,307,900.

The bulk of this expense will probably be covered by municipal general obligation bonds. Depending on the programs and facilities of the proposed center, funds are available from the following Federal agencies: Housing and Urban Development; Health, Education and Welfare; Department of Transportation; and the Justice Department. The Omnibus Crime Control and Safe Streets Act of 1968 legislates

funds for law enforcement functions.

The act authorizes grants for comprehensive state plans which cover:

1. Public protection and general crime reduction.
2. Recruiting and training of law enforcement personnel.
3. Public education relating to crime prevention.
4. Construction of buildings and facilities.
5. Combating organized crime.
6. Prevention and control of riots and civil disorders.
7. Recruiting and training of community service officers.

Revenue sharing is another method by which funds may be secured for construction of new facilities. The sale of the existing property as well as the use of phasing construction should not be overlooked as budget considerations.

Zone	Hours	Staff Number	Security Classification	Interpersonal Conflict	Fire Damage	Fire Hazard	Internal Flexibility	Noise Generation	Lighting	HVAC	Special Equipment	Area Sq. Ft.
LOBBY												
Reception	8	1	1	High	Low	Low	Yes	Medium	General	Important		100
Waiting	24	0	1	High	Low	Low	Yes	Medium	General	Important		600
Toilets	24	0	1	Low	Low	Low	No	High	General	Normal		350
ADMINISTRATION												
Offices	8	6	2	Medium	Low	Low	Yes	Low	General	Normal		1,000
Secretarial	8	9	1	Medium	Low	Low	Yes	High	Specific	Normal		1,000
Work Area	8	0	2	Low	Low	Medium	Yes	High	General	Normal		200
JUVENILES												
Work Area	8	0	Medium	Medium	Low	Low	Yes	Low	Specific	Normal		250
Counseling	8	0	Medium	High	Low	Low	Yes	Low		Important		200
DECTIVES												
Work Area	8	12	Medium	Medium	Low	Low	Yes	Low	General	Normal		1,000
Offices	8	3	Medium	High	Low	Low	Yes	Low	General	Important		500
Conference	8	0	Medium	High	Low	Low	Yes	Low	General	Important		600
PATROL												
Briefing	24	0/15	High	Low	Low	Low	Yes	Low	General	Normal	Project	600
Offices	8	3	Medium	Low	Low	Low	Yes	Low	General	Normal		500
Work Area	24	6	Medium	Low	Low	Low	Yes	Low	General	Normal		800
Locker Rooms	24	0	High	Low	Low	Low	No	Loud	General	Important		800
Library	24	0/8	Medium	Low	Low	Low	Yes	Low	Gen/Spec	Normal		200
Lounge	24	0/8	High	Low	Low	Low	Yes	Low	General	Normal	Vend/Machines	200
Arsenal	24	0	High	Low	High	High	No	Low	General	Normal	Special Electronic Locks	150
Shift Comm.	24	6	High	Low	Low	Low	No	Low	General	Normal	Radio Monitors	600
Exercise Room	24	0/4	High	Low	Low	Low	Yes	Loud	General	Important		300
COMMUNICATIONS												
Complaint											Teletype	
Reception	24	1	High	Low	High	High	Yes	Low	General	Normal	Phone	300
Dispatching	24	1	High	Low	High	High	Yes	Low	General	Normal	Fire Exting	300
Records	24	1	High	Low	High	Low	Yes	Low	General	Normal		800
SERVICE												
Photo Lab	8	1	High	Low	High	High	No	Low	Specific	Normal		250
Evidence Lab	8	1	High	Low	High	High	No	Low	Specific	Important	Distilled Water	
											Gas Exhaust	300
Evidence Stor	8	1	High	Low	High	Medium	No	Low	General	Important		250
Pistol Range	24	0	Medium	Low	Medium	High	No	High	Specific	Important		1,200
Property	8	See Photo	High	Low	High	Medium	No	Low	General	Normal		500
Em/Generator	/	0	High	Low	High	High	No	High	General	/		700
Mech/Space	/	0	High	Low	High	High	No	High	General	/		300
Toilets	24	0	Low	Low	Low	Low	No	High	General	Normal		400
Janitor Clos	24	0	High	Low	Low	Low	No	Low	General	Normal		50

Zone	Hours	Staff Number	Security Classification	Interpersonal Conflict	Fire Damage	Fire Hazard	Internal Flexibility	Noise Generation	Lighting	HVAC	Special Equipment	Area Sq. Ft.
DETENTION												
ADMINISTRATION												
Office	8	2	Medium	High	Low	Low	Yes	Low	General	Important		300
Secretary	8	1	Medium	High	Low	Low	Yes	Low	General	Important		150
Control Room	24	1	High	High	High	High	No	Medium	Specific	Important	Electronic Controls : CCTV	100
Visiting Rm	8	0	Medium	High	Low	Low	Yes	Medium	General	Important		250
Attorney Rooms	24	0	Medium	High	Low	Low	Yes	Low	General	Important		200
BOOKING												
Desk Area	24	2	High	High	Low	Low	No	High	General	Important		250
Temp. Holding	24	0	High	High	High	Low	No	Medium	General	Important	Bolt Down Furnish.	500
Alcoholic Hol.	24	0	High	Medium	Low	Low	No	Medium	General	Important	Remote Toilet Flush	350
Sobriety Test	24	0	High	High	Low	Low	No	Low	General	Important	Breath Analyzer Blood	100
Identifi- cation	24	0	High	High	Low	Low	No	Low	Specific	Important	Finger Prt.	150
Isolation	24	0	High	High	High	Low	No	Low	General	Important	Remote Toilet Flush	150
Strip-Shower	24	0	High	High	Low	Low	No	Low	General	Important	Delousing Medication	150
Property	24	1	High	Low	Low	Low	No	Low	General	Normal		100
Uniform	24	1	High	Low	Low	Low	No	Low	General	Normal		100
Med. Exam	24	0	High	Medium	Low	Low	No	Low	Specific	Important	Limited Med. Supplies	100
Sallyport	24	0	High	High	Low	Low	No	High	General		Remote Con- trol Gate Gun lockers	400
HOUSING												
Rooms	24	0	High	Low	High	High	No	Medium	General	Important	Combo Toilet/Sink	5,100
Day Rooms	16 max	0	High	High	High	High	No	High	General	Important		2,800
Showers	16 max	0	High	High	Low	Low	No	High	General	Normal		600
SERVICE												
Kitchen	12		High	Low	Medium	High	Yes	High	General	Normal		700
Food Storage	24	0	High	Low	Low	Low	No	Low	General	Normal		300
Can Wash	12	0	Low	Low	Low	Low	No	Medium	General			100
Staff Lounge	24	0	High	Low	Low	Low	No	Low	General	Normal		200
Recreat. Rm.	16	0	High	Medium	Low	Low	No	Medium	General	Normal	TV Tables	300

(Continued)

Zone	Staff Hours	Security Number	Classification	Interpersonal Conflict	Fire Damage	Fire Hazard	Internal Flexibility	Noise Generation	Lighting	HVAC	Special Equipment	Area Sq. Ft.
SERVICE (Continued)												
Interview Rms.	24	0	High	High	Low	Low	No	Low	General	Important		200
Laundry	12		High	Low	Medium	High	No	High	General	Normal		450
Mechanical	24	0	High	Low	High	High	No	High	General			250
Toilets	24	0	High	Low	Low	Low	No	Medium	General	Normal		100
Jan. Closet	24	2	High	Low	Low	Low	No	Low	General	Normal		50
Food Office	12	1	High	Low	Low	Low	No	Low	General	Normal		150
COURTS												
Court Rms.	8	0	Low	High	High	Low	No	High	General	Important	AV Equip.	1,200
Jury Room	8	0	High	High	Low	Low	No	Medium	General	Important		300
(3) Judges Off.	8	3	Medium	Medium	Low	Low	No	Low	General	Normal		750
(3) Judge Sec.	8	3	Medium	Medium	Low	Low	No	Low	General	Normal		450
(3) Legal Off.	8	3	Medium	Medium	Low	Low	No	Low	General	Normal		600
(3) Legal Sec.	8	3	Medium	Medium	Low	Low	No	Low	General	Normal		450
Conf. Room	8	0	Low	Medium	Low	Low	Yes	Low	General	Normal		300
Toilets	8	0	High	Low	Low	Low	No	High	General	Normal		400
Storage	8	0	High	Low	Low	Medium	Yes	Low	General	Normal		200
Work Room	8	0	High	Low	Low	High	Yes	Medium	Specific	Normal	Duplic. Equip.	200
Jan.	8	2	High	Low	Low	Low	No	Low	General	Normal		50
Mechanical	24	0	High	Low	High	High	No	High	General			300

Table 5.

AREA SUMMARYLaw Enforcement

Lobby	1,050
Administration	2,200
Juveniles	450
Detectives	2,100
Patrol	4,150
Communications	1,400
Service	3,350
Sub-total	<u>14,700</u>
Circulation (22%)	3,234
Mechanical (8%)	<u>1,434</u>
	19,360

Detention

Administration	1,000
Booking	2,000
Housing	8,500
Service	2,800
Sub-total	<u>14,300</u>
Circulation (27%)	3,861
Mechanical (12%)	<u>2,179</u>
	20,340

Court

Courtroom	1,500
Offices	2,250
Service	1,450
Sub-total	<u>5,200</u>
Circulation (15%)	780
Mechanical (8%)	<u>478</u>
	6,458

FACILITY TOTAL

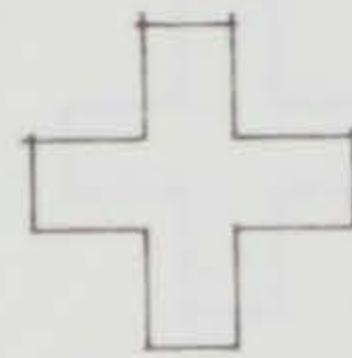
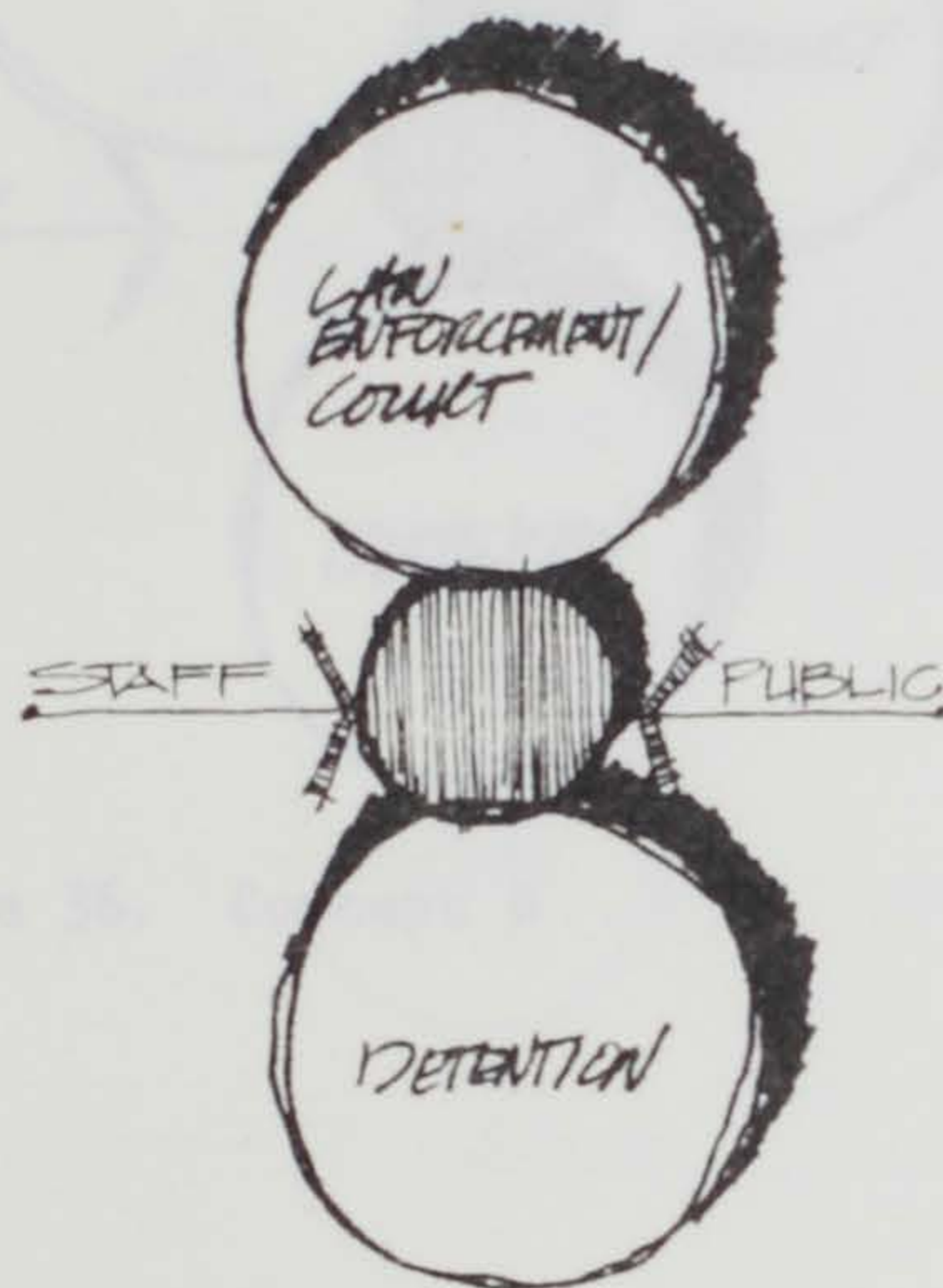
46,158 Sq. Ft.

PROPOSAL

PROPOSAL

There were four major concepts that developed early in the project. Each of these concepts was evaluated against the major issues and design concepts. These positive and negative characteristics were then compiled to select the one major concept that would be developed. This section of the report displays the results of that evaluation. Following the four potential concepts is a compilation of the design concepts as they were applied to the project.

The last section of the report is the final design proposal for the joint Law Enforcement Center.

CONCEPT A

Component Expansion Potential

Staff Circulation

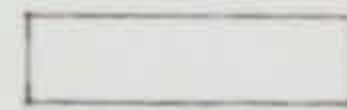
Public Circulation

Location of Public and Private Entry

Visual Barrier between Detention and Residential

Supervision of Public Entry from Control Room

Common Lobby



Court-Detention Circulation

Screening of Service Area from Residential Area

Perimeter Security for the Detention Area

Distance between the Components

Figure 35. Concept A

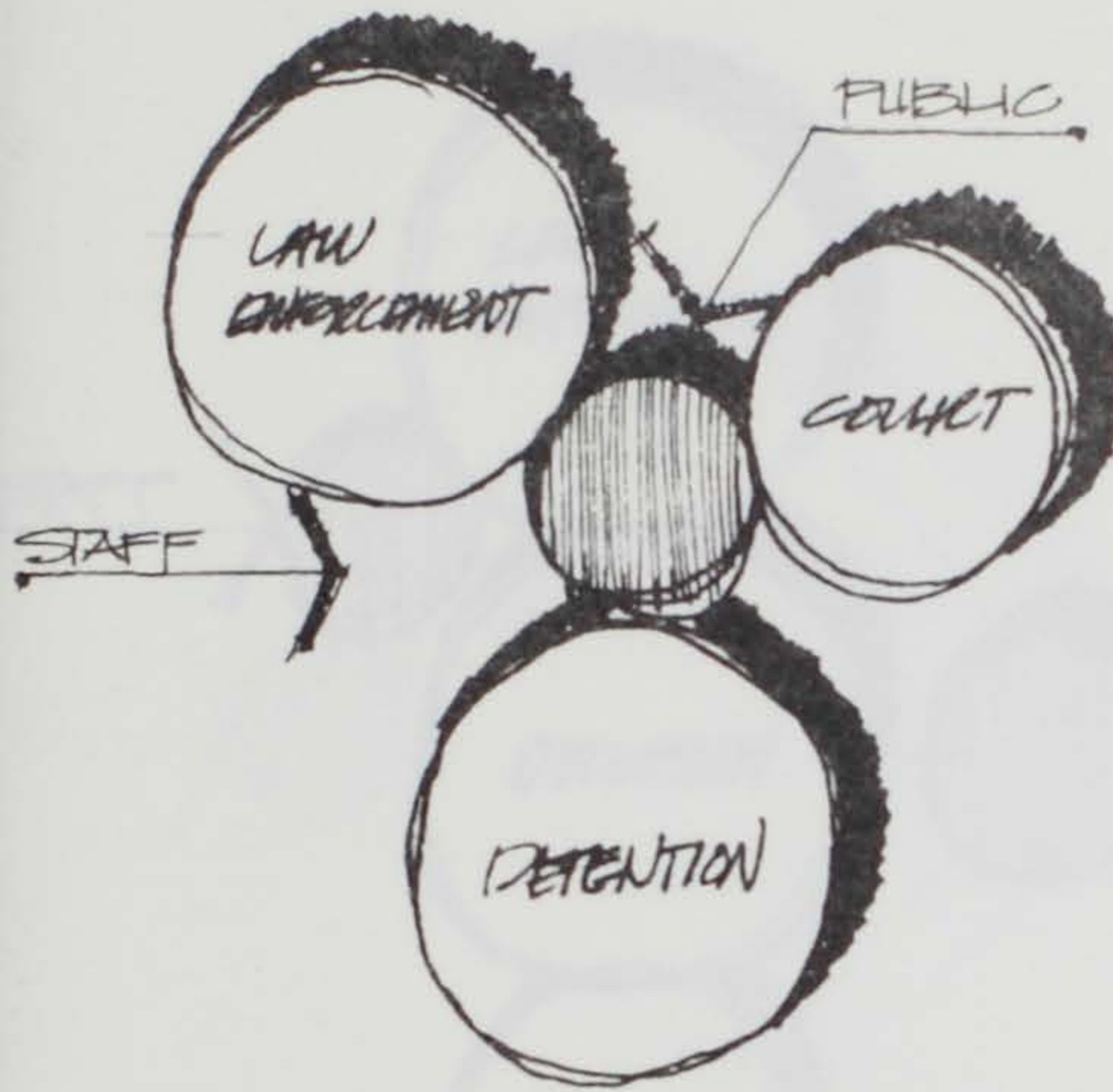
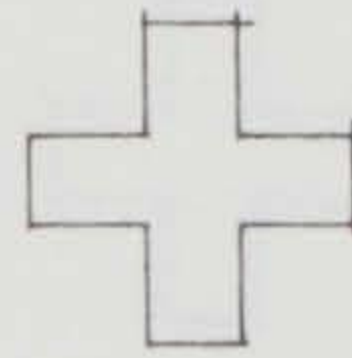
CONCEPT B

Figure 36. Concept B



Component Expansion Potential

Staff Circulation

Public Circulation

Location of Public and Private Entry

Screening of Service Area from Residential Area

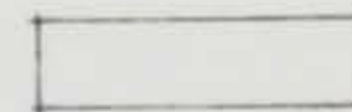
Visual Barrier between Detention and Residential

Supervision of Public Entry from Control Room

Hazard of Spread Fire

Common Lobby

Natural Lighting and Views



Perimeter Security for the Detention Area

Wall Area for Energy Conservation

Distance between the Components

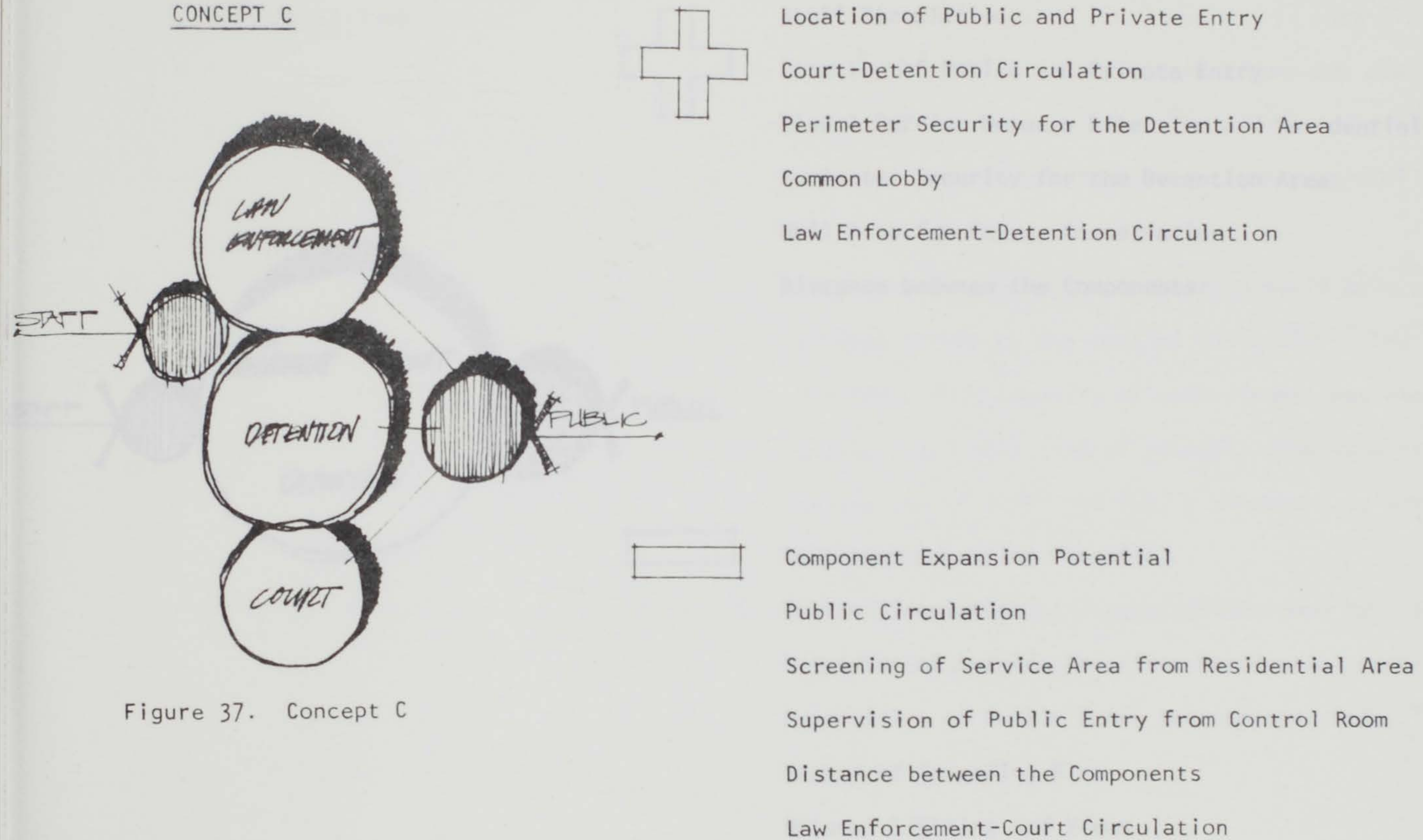
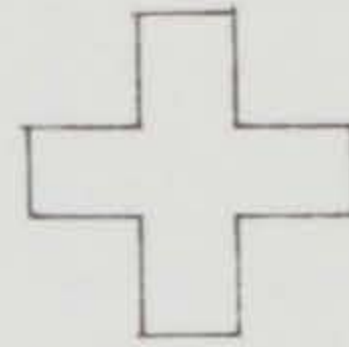
CONCEPT C

Figure 37. Concept C

CONCEPT D

Staff Circulation

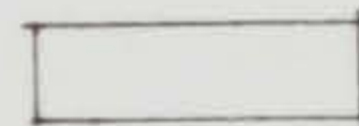
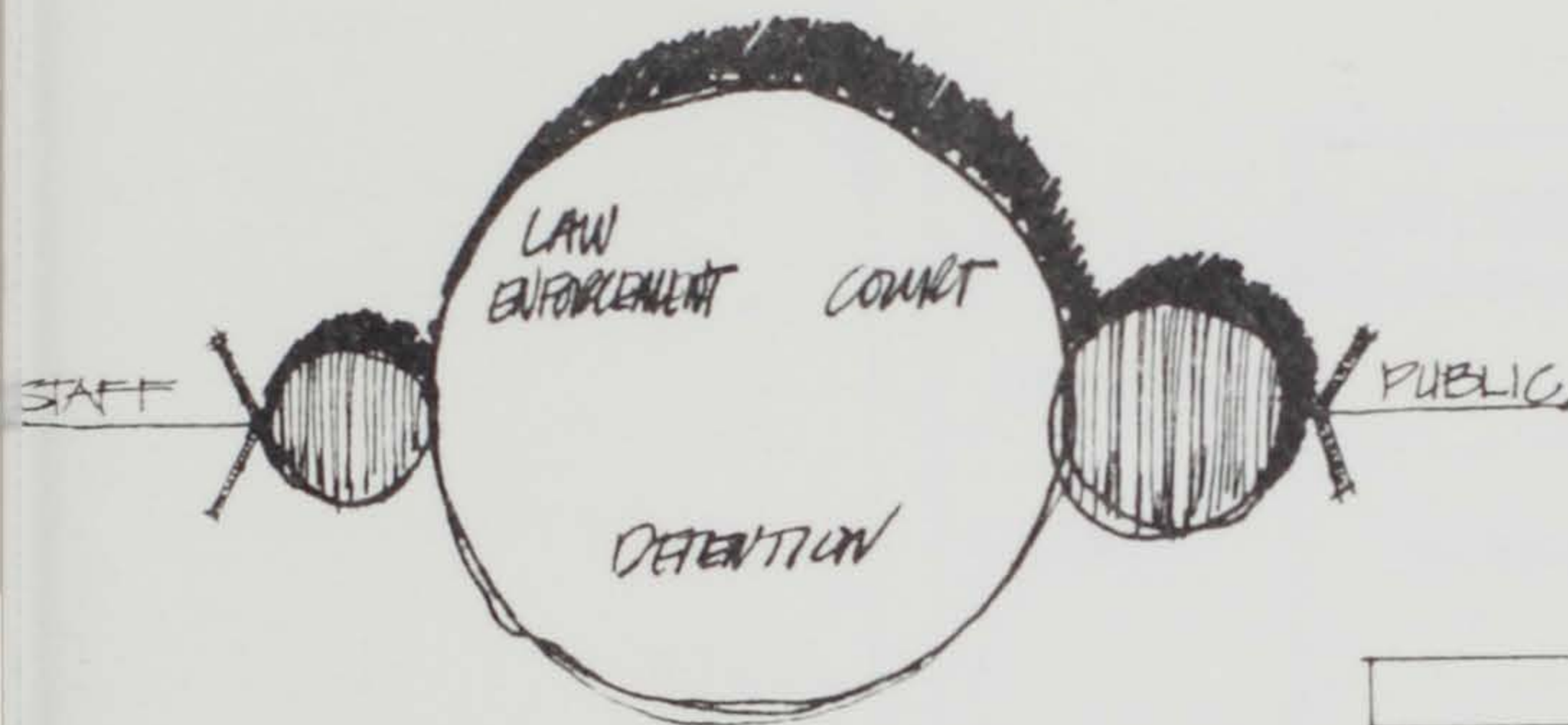
Location of Public and Private Entry

Visual Barrier between Detention and Residential

Perimeter Security for the Detention Area

Wall Area for Energy Conservation

Distance between the Components



Component Expansion Potential

Public Circulation

Screening of Service Area from Residential Area

Supervision of Public Entry from Control Room

Hazard of Spreading Fire

Natural Lighting and Views

CONCEPT SELECTION

Concept B was selected due to its potential for flexibility. While it did have a somewhat greater potential for energy consumption than some of the other proposals, it also had a potential for natural ventilation if necessary.

Fire or expansion in one area would also have a minimal effect on the rest of the center. The potential for individual identity of each element was also much greater with this type of concept. The complete separation of staff and public entrances is also very important.

This particular concept solves many of the anticipated problems and should provide a sound basis for design.

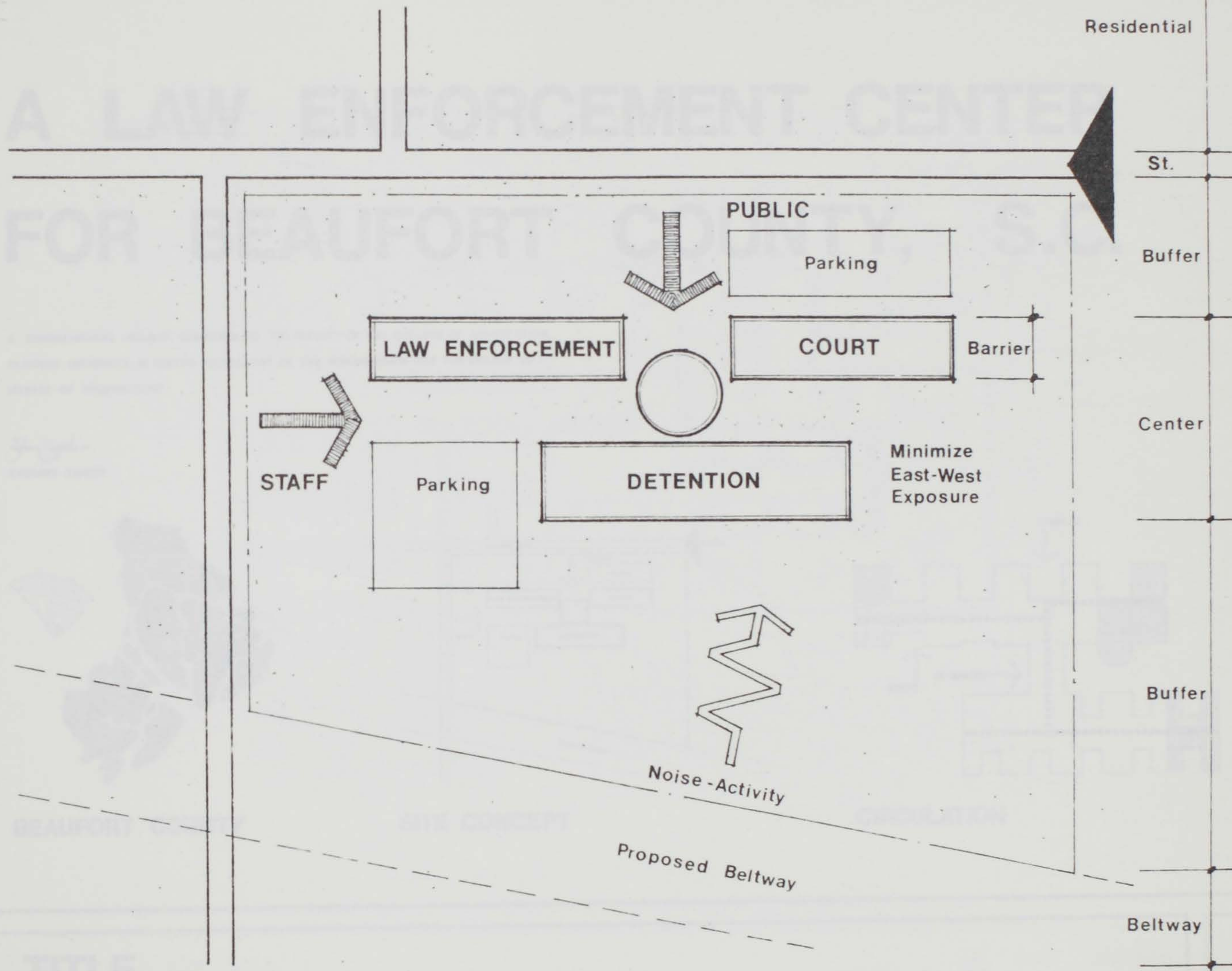


Figure 39

SITE CONCEPT



200'

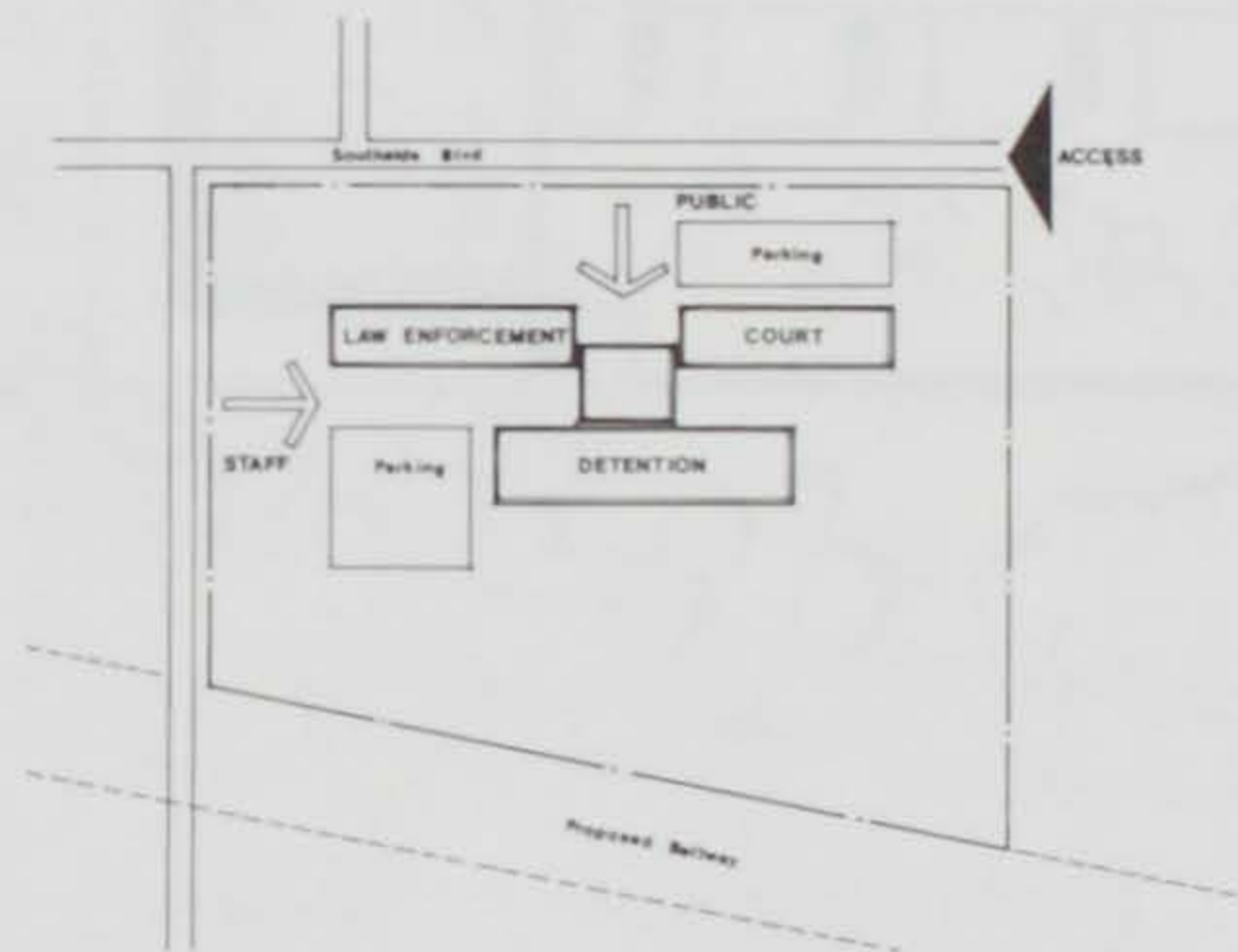
A LAW ENFORCEMENT CENTER FOR BEAUFORT COUNTY, S.C.

A COMPREHENSIVE PROJECT SUBMITTED TO THE FACULTY OF THE COLLEGE OF ARCHITECTURE,
CLEMSON UNIVERSITY, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF :
MASTER OF ARCHITECTURE

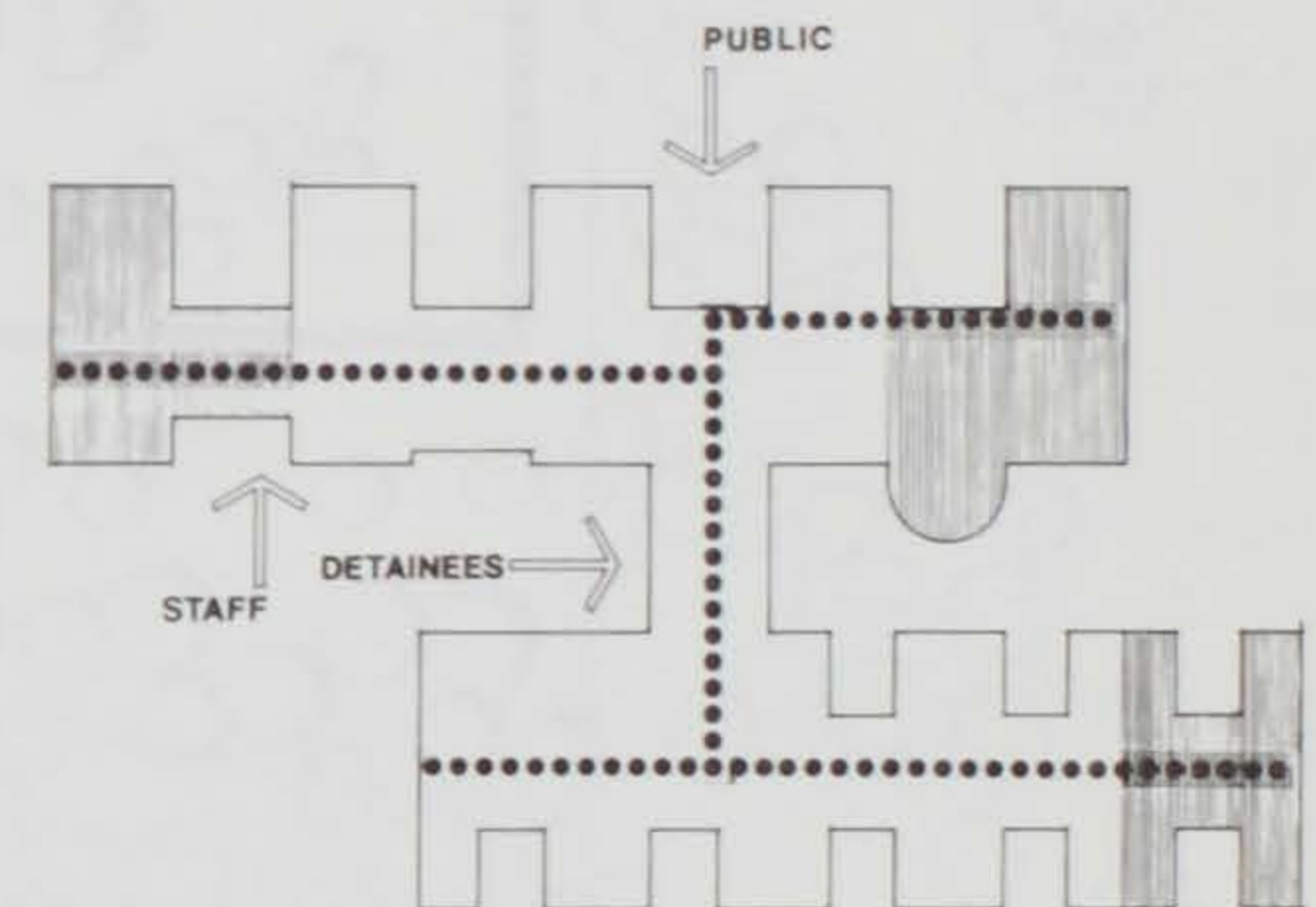
Zachary Zapack
ZACHARY ZAPACK



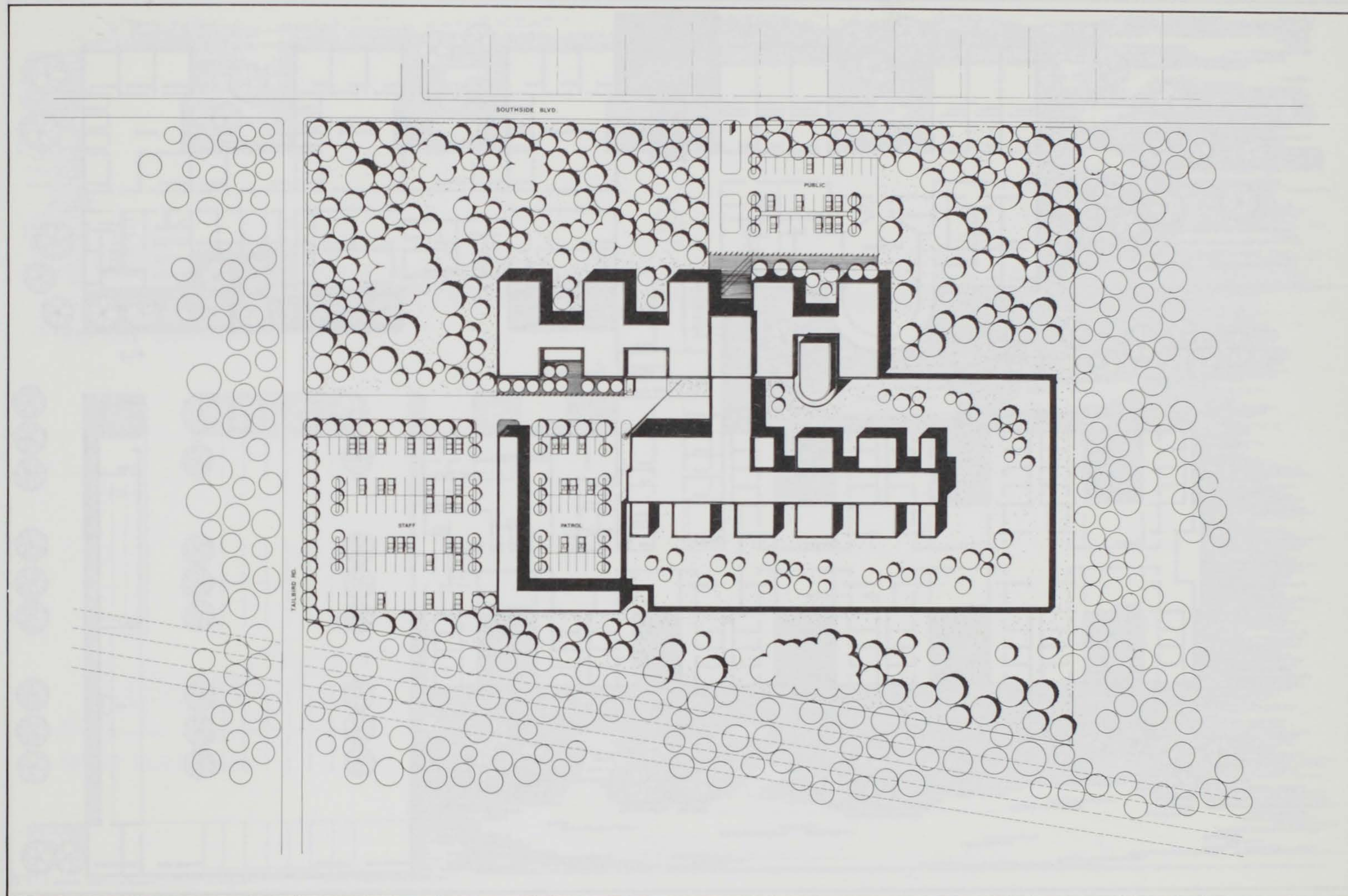
BEAUFORT COUNTY

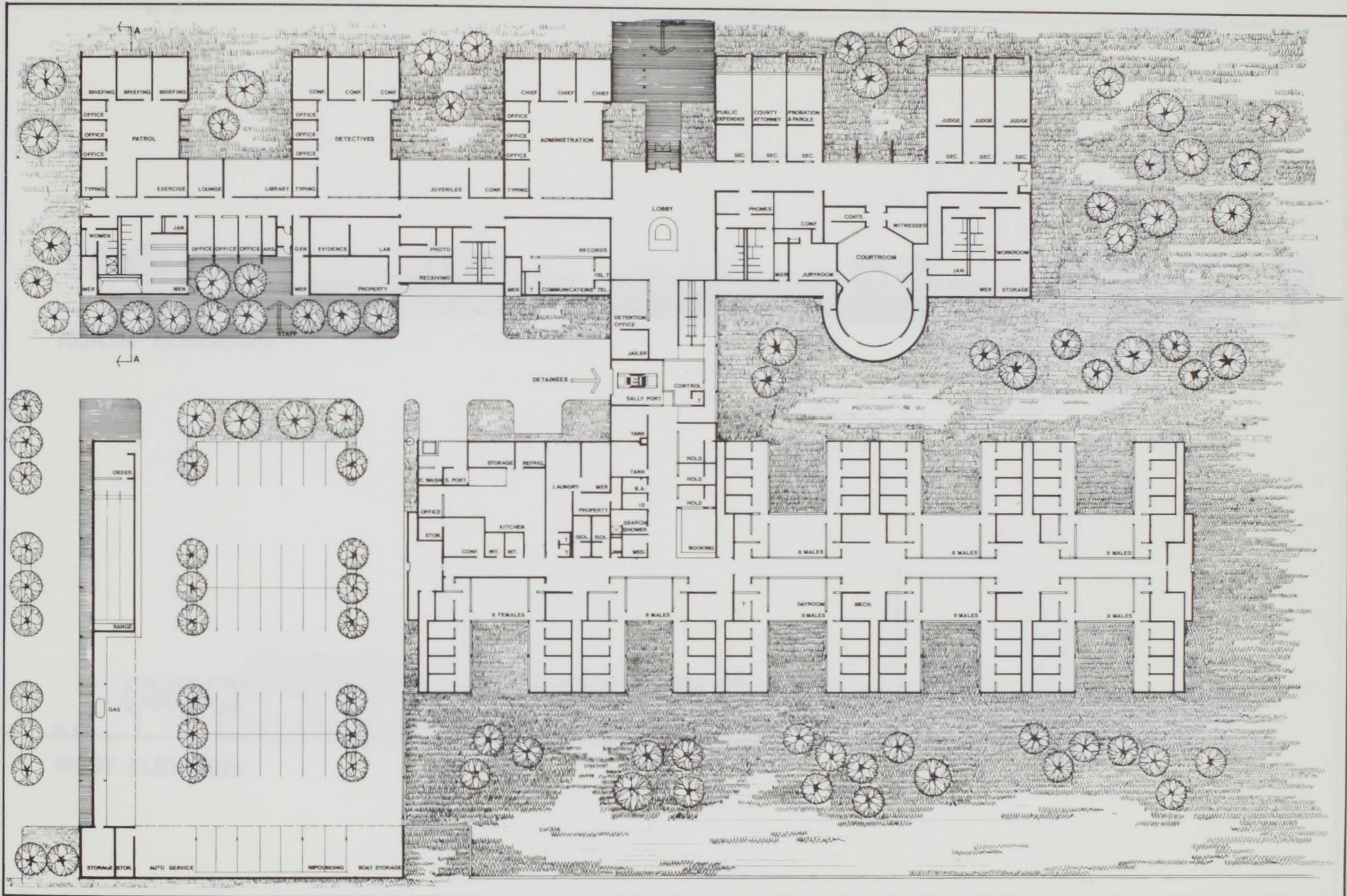


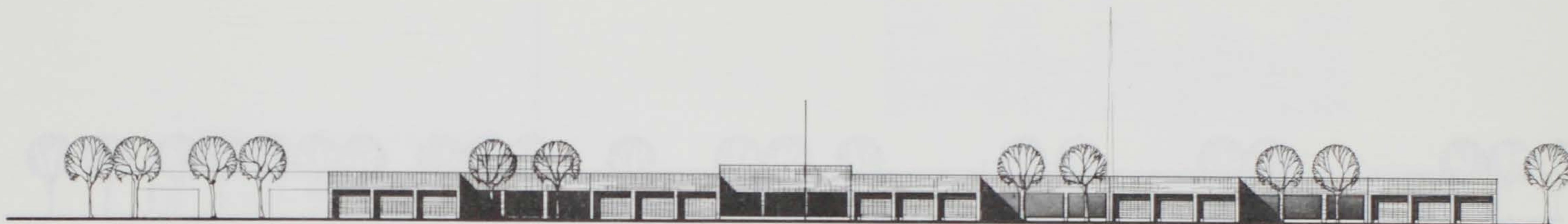
SITE CONCEPT



CIRCULATION



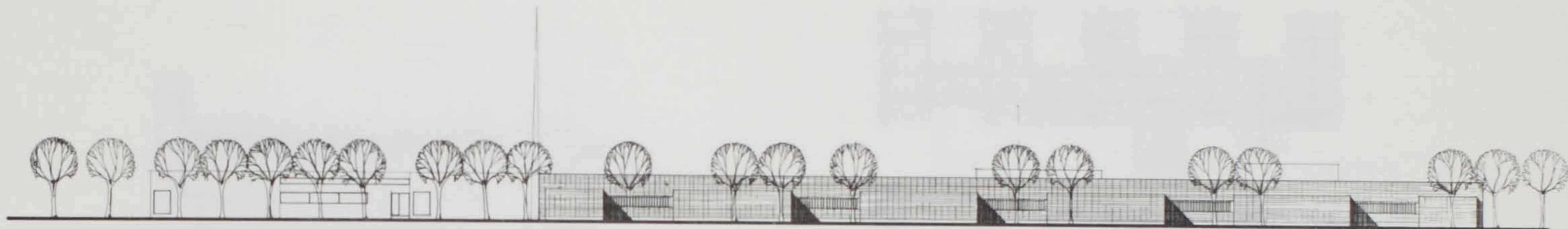




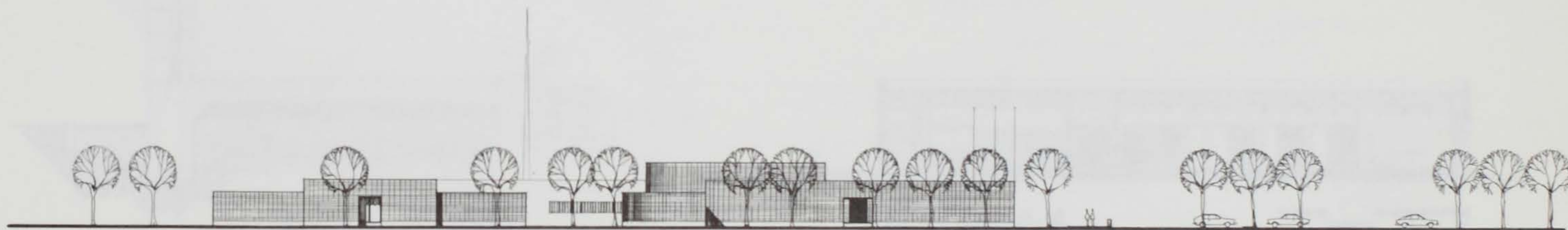
NORTH ELEVATION



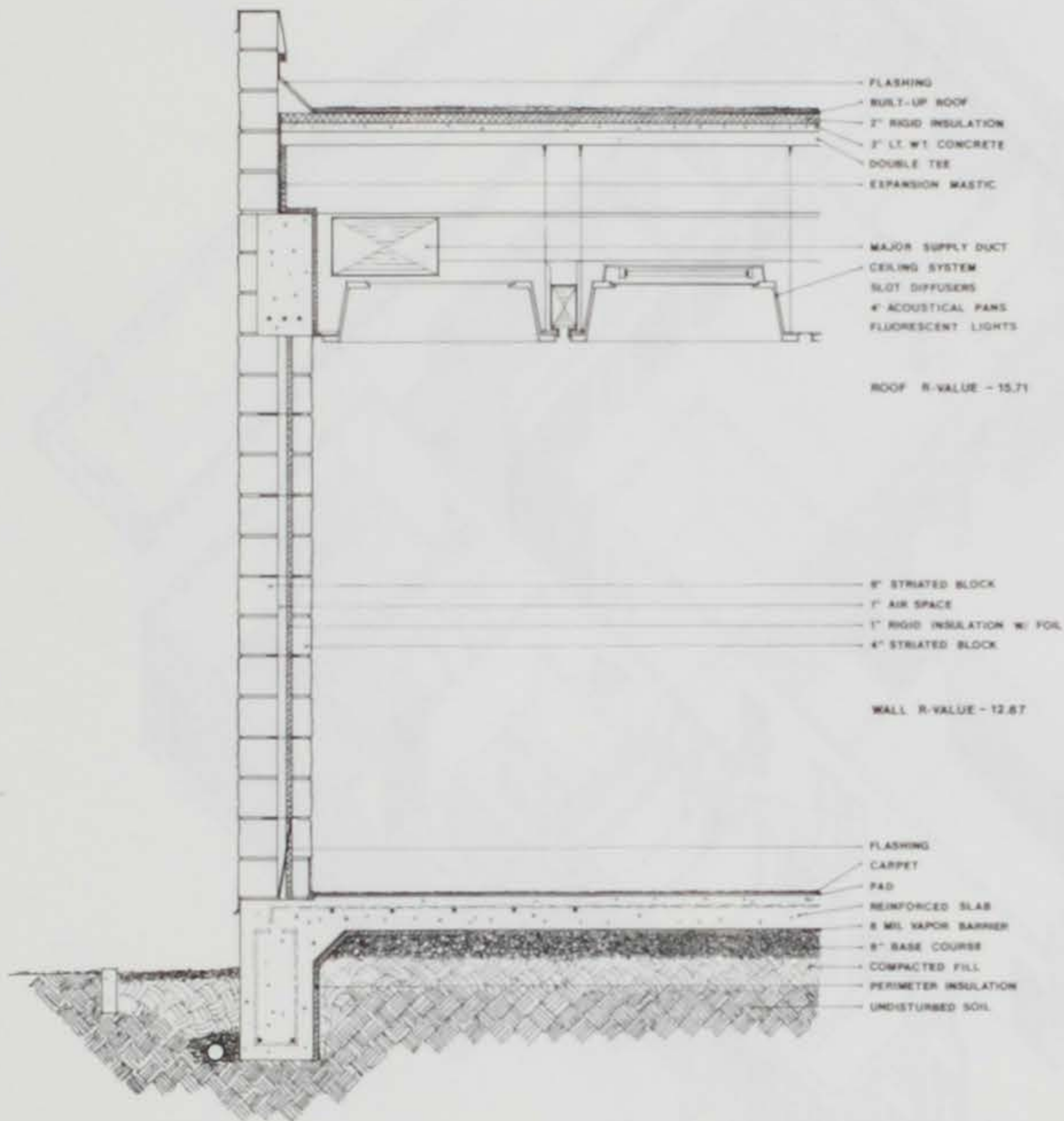
WEST ELEVATION



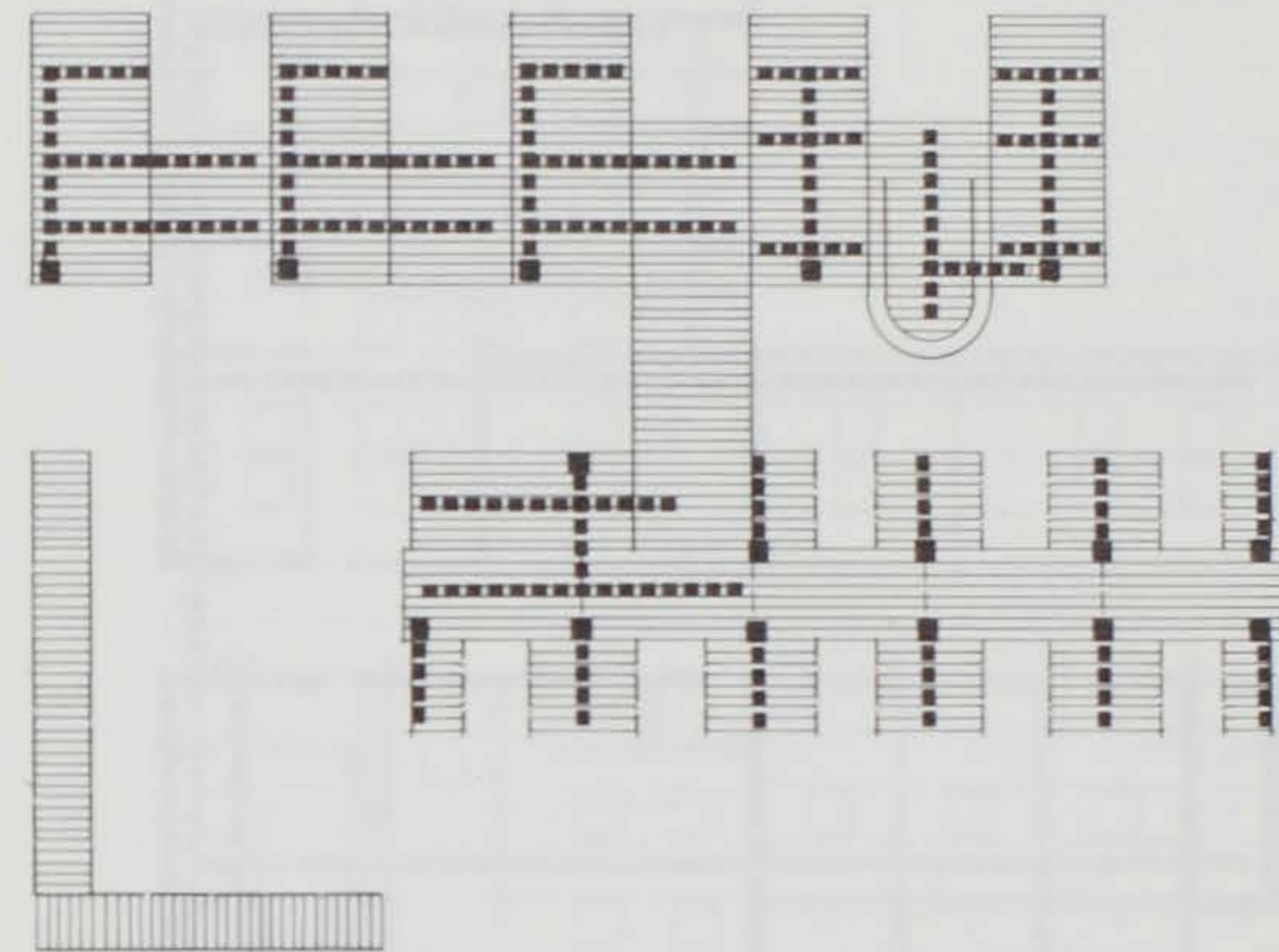
SOUTH ELEVATION



EAST ELEVATION



WALL SECTION

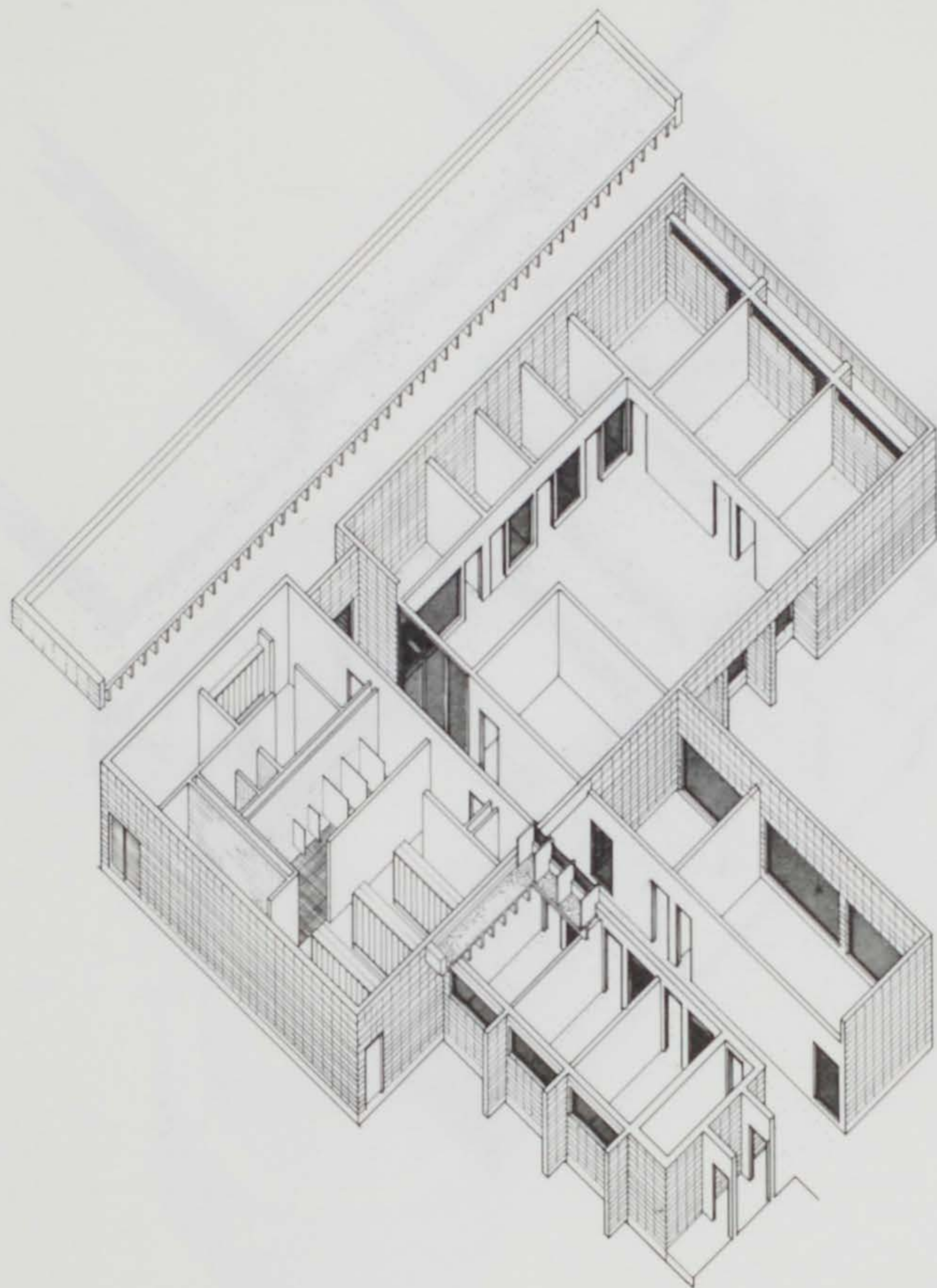


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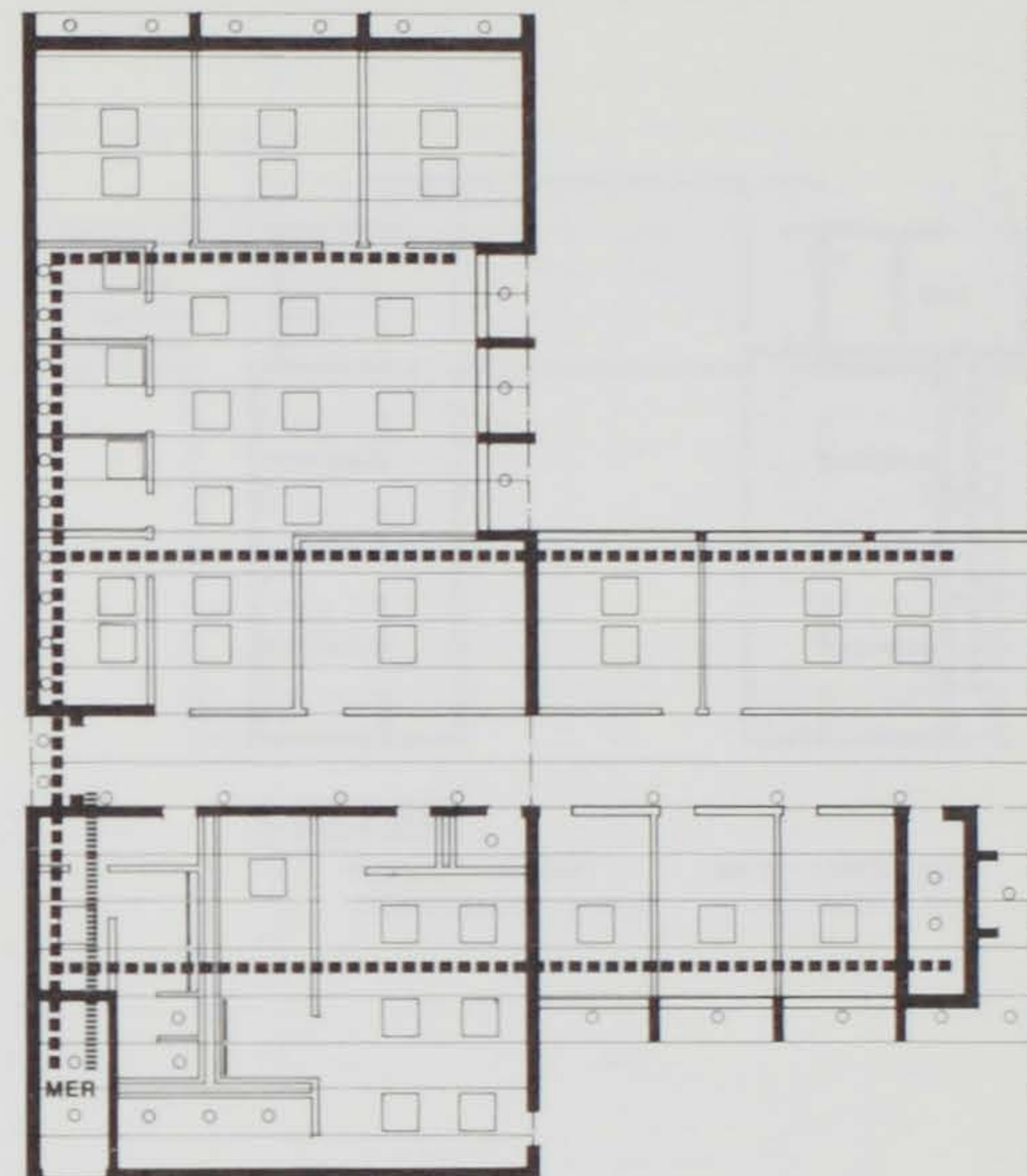
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- BEAM
- DOUBLE TEE
- MAJOR SUPPLY DUCT



SECTION A-A

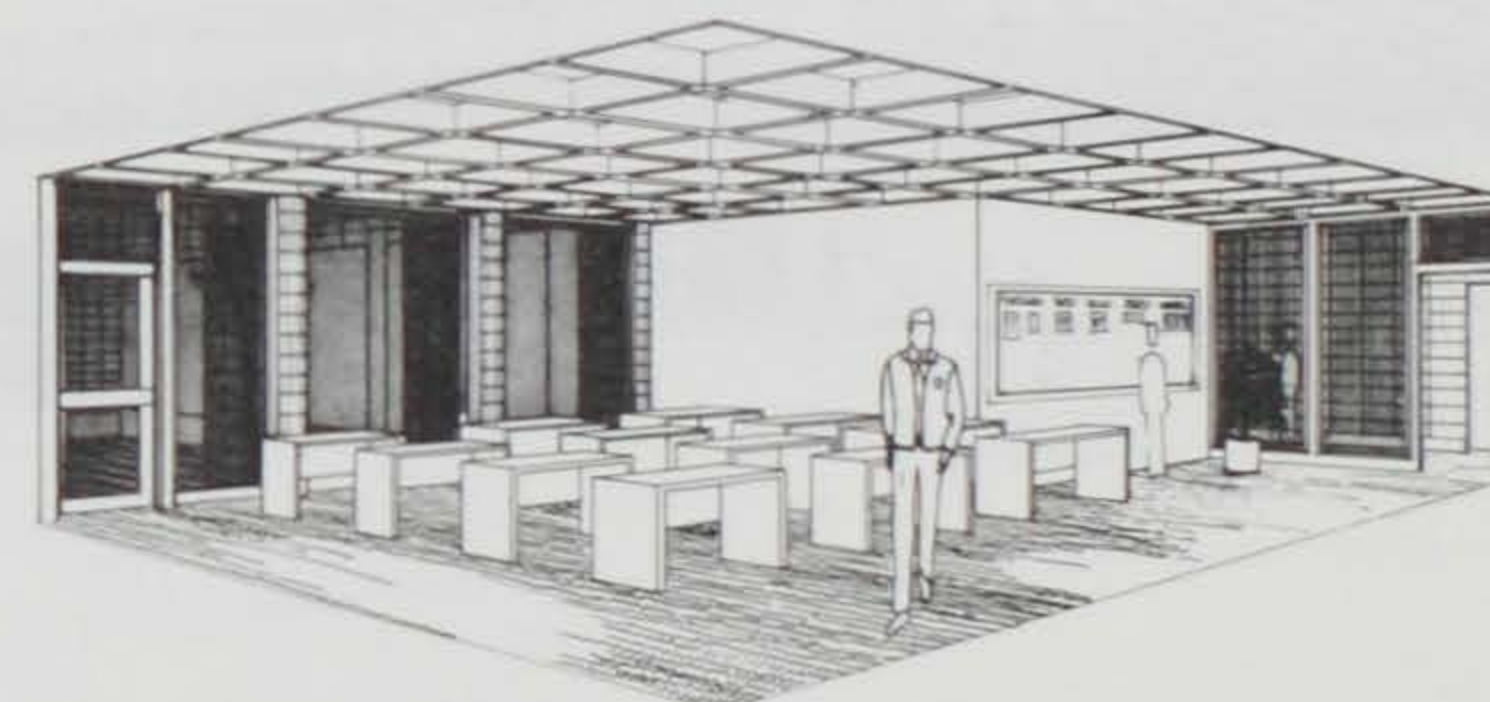


PATROL UNIT

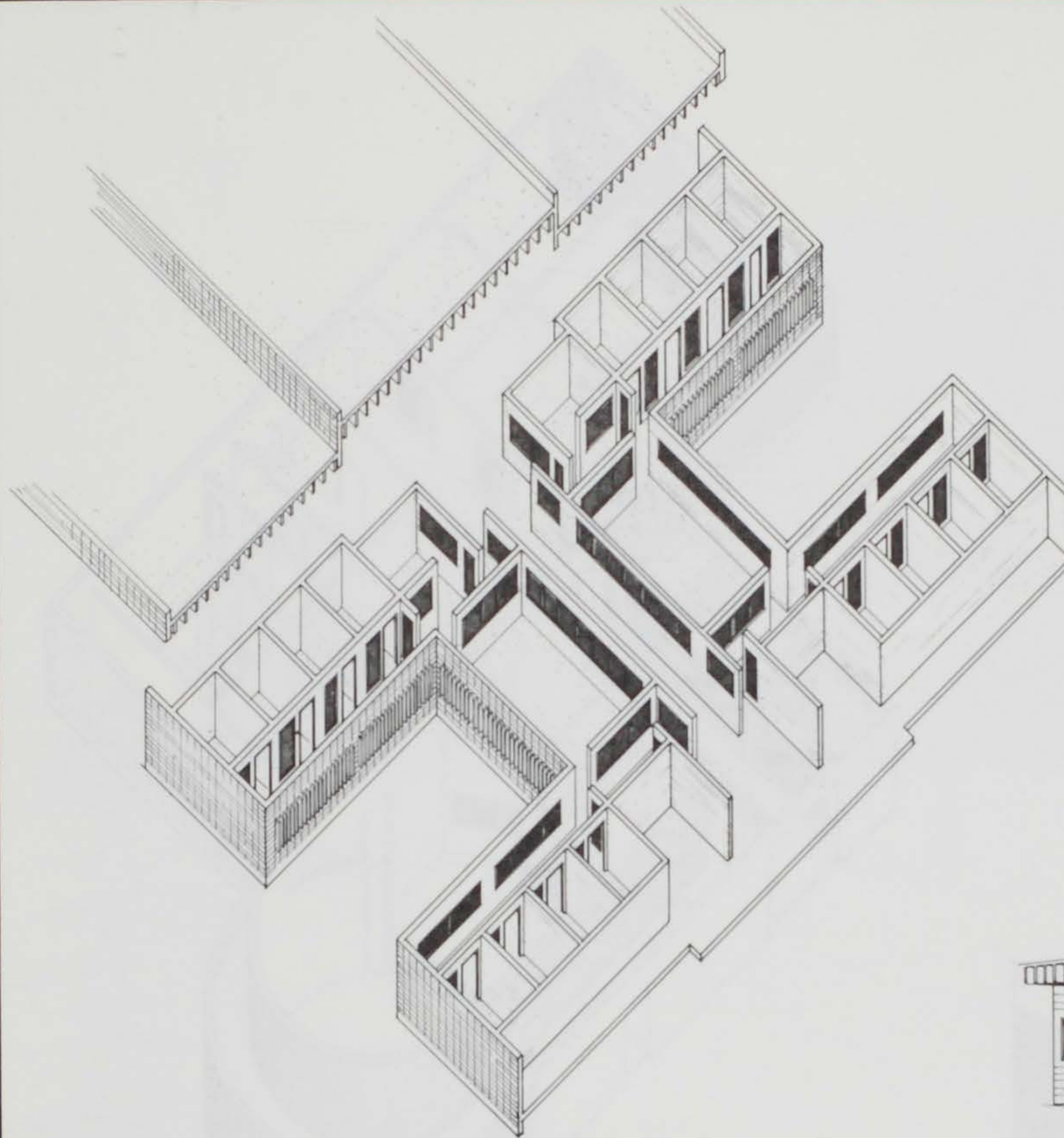


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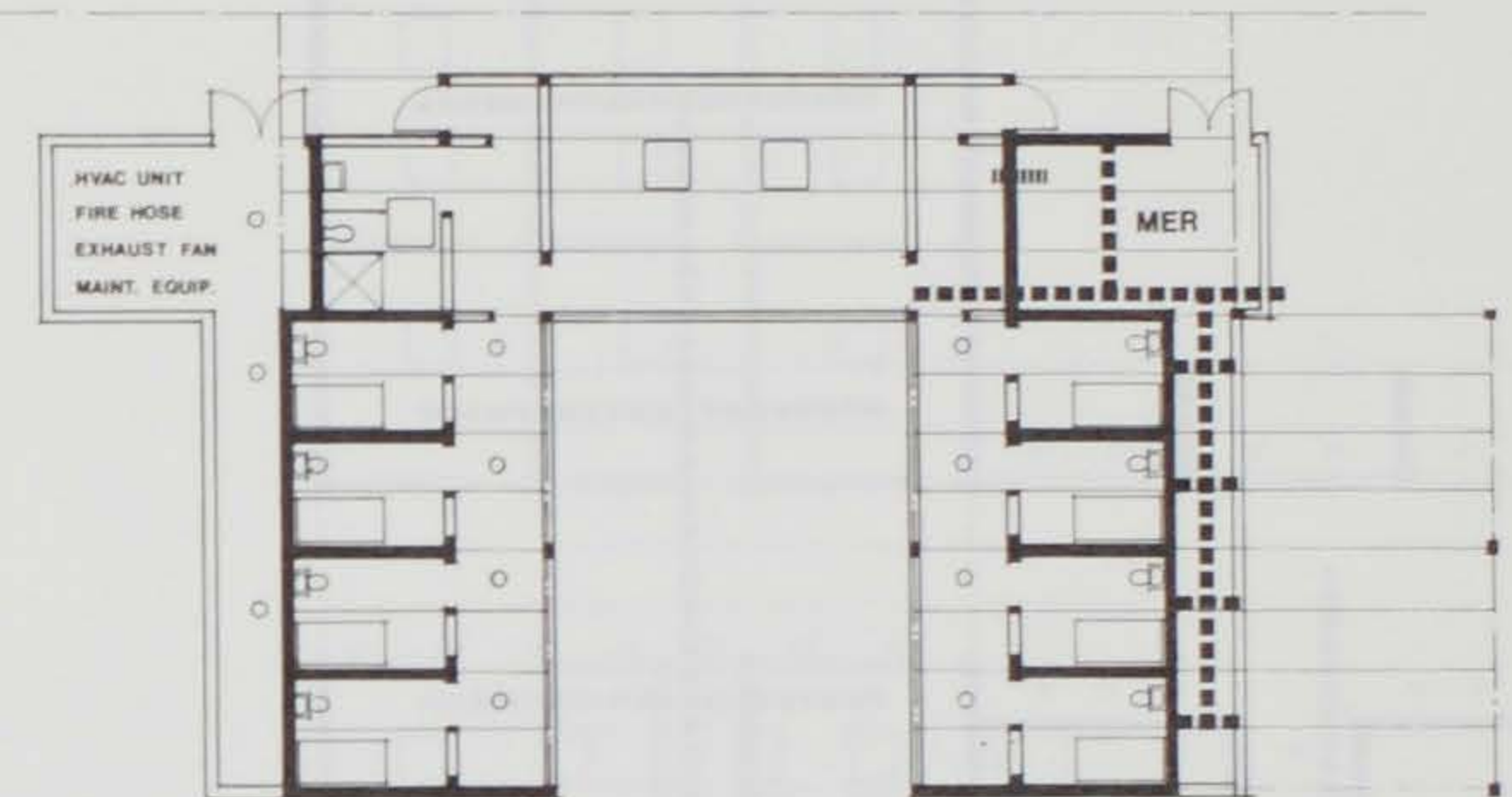
- FLUORESCENT UNIT
- INCANDESCENT CAN
- MAJOR SUPPLY DUCT
- ▨ RETURN DUCT



REPORT WRITING



HOUSING UNITS

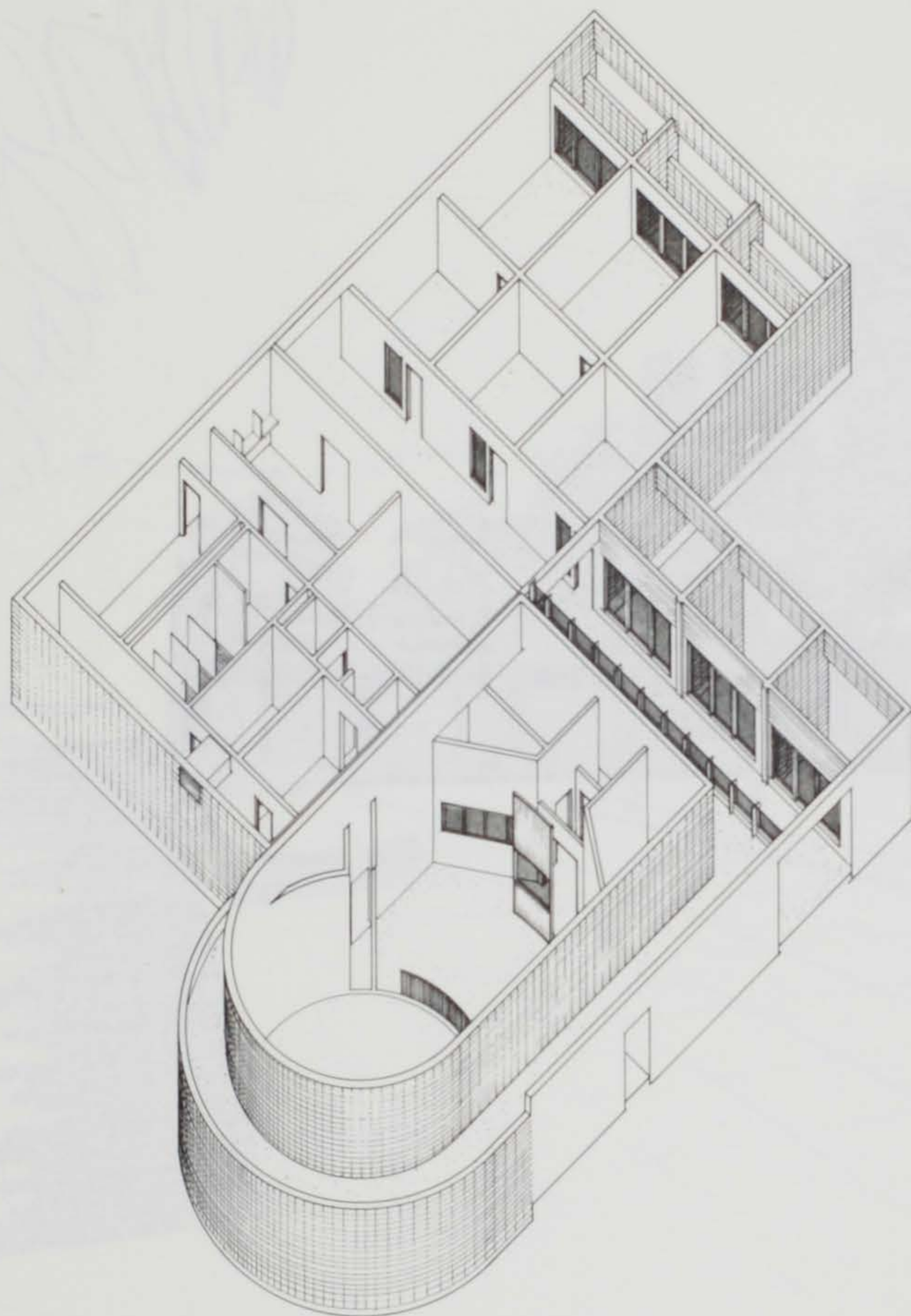


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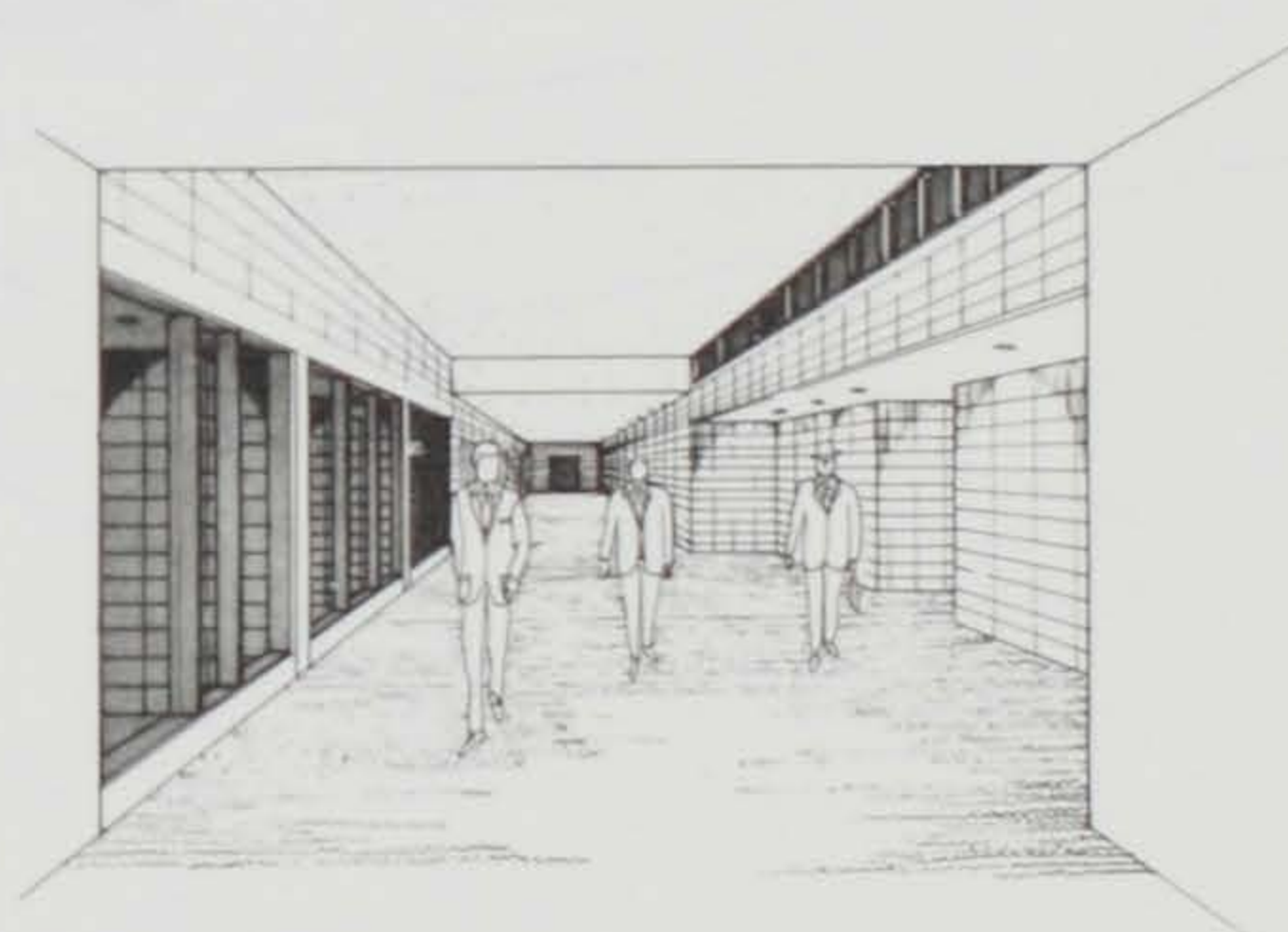
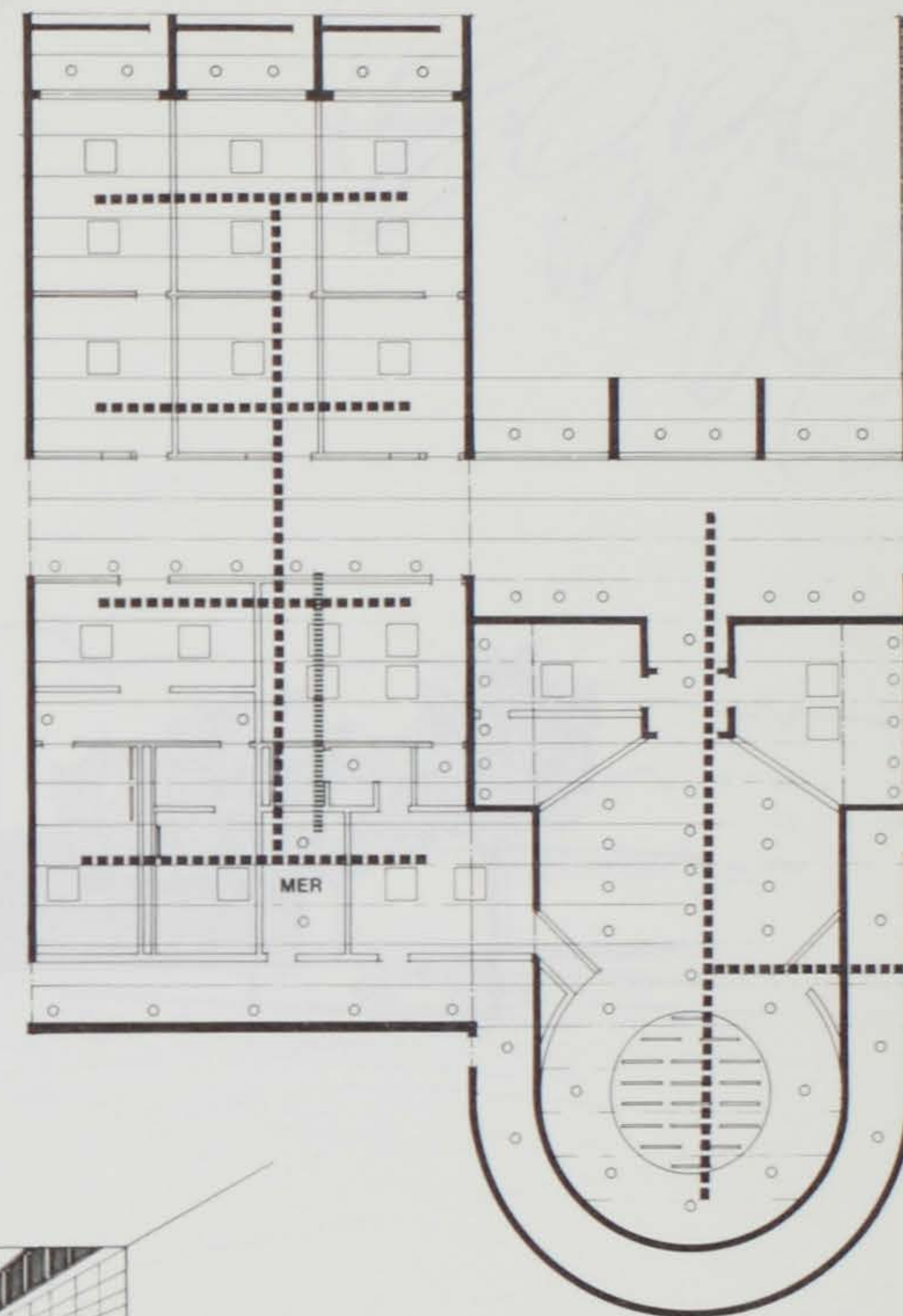
- | | |
|----------------------|-------------|
| FLUORESCENT UNIT | SUPPLY DUCT |
| INCANDESCENT FIXTURE | RETURN AIR |



HOLDING AREA



COURT UNIT



COURT LOBBY



VIEW FROM THE NORTHEAST

FOOTNOTES

1. Correctional Environments, (Urbana: National Clearinghouse for Criminal Justice Planning and Architecture, 1971), p. 5.

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3. Ibid.

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6. Ibid.

7. Ibid.

8. Ibid.

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12. Ibid., p. 21.

13. Ibid., p. 22.

14. Ibid.

15. Ibid., p. 23.

16. Ibid.

17. Ibid.

18. Ibid., p. 24.
19. Ibid.
20. Ibid., p. 3.
21. Ibid., p. 12.
22. Ibid., p. 52.
23. Ibid.
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26. Ibid.
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28. Ibid., p. 34.
29. David L. Norrgard, Regional Law Enforcement, (Chicago: Public Administration Service, 1969), p. 30.
30. Lowcountry Law Enforcement Report, p. 25.
31. Ibid., p. 17.
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33. Spokane County-City Public Safety Building, (Spokane: Walker and McGough, Architects, 1968), p. 10.

34. Interview with Bill Davis, Craig and Gaulden, Architects, 12-3-76.
35. Interview with the Building Supervisor, Florence City Hall, 11-5-76.
36. Kansas City, Missouri: District Police Services, (Urbana: National Clearinghouse for Criminal Justice Planning and Architecture, 1976), p. 2.
37. Appleton, Wisconsin: Design for Change, (National Clearinghouse for Criminal Justice Planning and Architecture, 1976), p. 1.
38. Feasibility Report for a New Joint City-County Law Enforcement Facility, Beaufort County, p. 63.
39. Ibid., p. 68.
40. Interview with John French, Beaufort Police Department, 11-3-76.
41. Greenville City-County Law Enforcement Center: Master Plan Study, p. 6.
42. Feasibility Report for a New Joint City-County Law Enforcement Facility, Beaufort County, p. 63.
43. Neighborhood Analysis, Beaufort, South Carolina, (Columbia: Community Planning Division, South Carolina State Planning and Grants Division, Office of the Governor, 1970), p.
44. Guidelines for the Planning and Design of Police Programs and Facilities, (Urbana: National Clearinghouse for Criminal Justice Planning and Architecture, 1973), p. D8c.

45. Feasibility Report for a New Joint City-County Law Enforcement Facility, Beaufort County, p. 64.

46. Official Zoning Ordinance, (Beaufort: City of Beaufort, 1972), p. 51.

47. Correctional Environments, p. 6.

48. Feasibility Report for a New Joint City-County Law Enforcement Facility, Beaufort County, p. 64.

49. Ibid., p. 63.

50. Beaufort Area Transportation Study, (Columbia: South Carolina State Highway Department, 1971), p.

51. Ibid.

52. O. W. Wilson and Roy Clinton McLaren, Police Administration, (New York: McGraw-Hill, 1972), p. 541.

53. Interview with John French.

54. Beaufort Urban Design Study, (Clemson: Clemson Architectural Foundation, 1972), p.

55. Charles G. Ramsey and Harold R. Sleeper, Architectural Graphic Standards, (New York: John Wiley and Sons, Inc., 1970), p. 90.

56. Standard Building Code, (Birmingham: Standard Building Code Congress International, Inc., 1976, pp. 12-14.

57. Ibid., pp. 12-16.

58. Guidelines for the Planning Design of Police Programs and Facilities, p. D5.6c.

59. Ibid., p. D8c.
60. Norrgard, p. 3.
61. Guidelines for the Planning and Design of Police Programs and Facilities, p. D5.1c.
62. Ibid., p. F2.2c.
63. Ibid., p. D15.2c.
64. Ibid., p. D5.4c.
65. Ibid., p. D5.6c.
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71. Feasibility Report for a New Joint City-County Law Enforcement Facility, Beaufort County, p. 58.
72. Norrgard, p. 30.

73. Kansas City: District Police Services, p. 2.
74. Guidelines for the Planning and Design of Police Programs and Facilities, p. D6.1c.
75. Wilson, p. 546.
76. Guidelines for the Planning and Design of Police Programs and Facilities, p. C3.7a.
77. Ibid., p. D16.2c.
78. Wilson, p. 547.
79. Noorgard, p. 10.
80. Jail Architecture, (Washington: National Sheriffs' Association, 1975), p. 55.
81. Jail Administration, (Washington: National Sheriffs' Association, 1974), p. 65.
82. Guidelines for the Planning and Design of Regional and Community Correctional Centers for Adults, (Urbana: National Clearinghouse for Criminal Justice Planning and Architecture, 1971), p. E11.10.
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84. Ibid.

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